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BOOK REVIEWS

Financial Aspects of Rural Poverty. (Australian Government Publishing Service, 1975.) Pp. 120, \$2.90, ISBN: 0 642 00785 3.

Poverty in Australia, First Main Report of the Commission of Inquiry into Poverty. (Australian Government Publishing Service, 1975.) Pp. 363, \$7.95, ISBN: 0 642 00844 2.

Financial Aspects of Rural Poverty contains the reports of two research studies commissioned by the Australian Government's Commission of Inquiry into Poverty. The first was compiled by W. F. Musgrave, P. A. Rickards, and I. F. Whan of the Department of Agricultural Economics and Business Management of the University of New England. The report deals with the nature and extent of poverty on farms in New South Wales and Queensland, the causes of this poverty and the ways in which it could be alleviated. The second research report was compiled by D. P. Vincent, A. S. Watson and L. M. Barton of the School of Agriculture and Forestry of the University of Melbourne and it deals with similar information relating to poverty among farmers in three districts of Victoria.

The first two chapters of the University of New England report examine the scale and causes of poverty on farms in New South Wales and Queensland. Defining a poverty income for a standard family unit as one that does not exceed 60 per cent of average male earnings, approximately 17 per cent of farm families were classified as being poor in the early 1960's, with the dairying and fruit growing industries being worst affected. In the late 1960's and early 1970's there was a substantial increase in poverty among wool producers and cereal/livestock producers, with perhaps as many as 30 per cent of farmers being poor at the turn of the decade in marginal areas of New South Wales and Queensland.

Following a brief overview of existing rural policies in Chapter 3 the major policy recommendation of the report, a Farm Household Relief Scheme, is outlined in Chapter 4. The scheme is aimed at farmers whose poverty is of a temporary nature, being caused by a short-term fall of prices or adverse seasonal conditions. It is essentially a method of short-term income maintenance which seeks to ensure that the consumption income available to any farm family does not fall below the poverty line. The report recognizes the need for carefully defined eligibility rules. For example, assistance would not be provided until credit sources had been used to their limit and it is envisaged that the scheme would not apply to any farmers with a net worth exceeding \$40,000. However, I believe that the report can be criticized on the grounds that the difficulties associated with obtaining a suitable welfare measurement of farm income are not discussed in any depth.

The University of Melbourne report is in three parts. Chapter 1 outlines the main financial results—incomes, assets, and debts—from three Victorian farm surveys: the Wimmera cereal-growing area, the Shelford soldier settlement scheme in the Western District, and the Dundas Tablelands of Western Victoria. Chapter 2 discusses the diffi-

culties associated with obtaining a suitable welfare measurement of farm income. Consideration is given to the incorporation of 'psychic income' and farm perquisites in the analysis of equivalent money levels of income between farmer and non-farmer. It is also proposed that current income alone is inadequate as a measure of welfare and that an improved measure of well-being can be obtained by the annuitization of net wealth and its addition to income. The inclusion of wealth, by converting net worth into an annuity, substantially reduced the proportion of farm income units classified as being in poverty in two of the three Victorian farming districts. The Victorian survey results seem to parallel those obtained in the United States. That is to say, farm families may be in a relatively worse position with respect to income but they are in a markedly superior position with respect to net worth as compared with non-farm families.

The final section of the report provides an extremely good outline of Australian agricultural policy as it relates to rural adjustment and reconstruction and to rural poverty. Australian agricultural price policies, concessional rural credit policies, and farmers' concessions with respect to death duties are all criticized on the grounds that they have generally favoured the well-off producer relative to the poor farmer.

A proposal is made for more flexible farm credit arrangements with repayment rates geared to farm incomes so as to help stabilize farm consumption and investment expenditures. But the most interesting proposal is a system of annuities for farmers. This proposal is made on the grounds that within the present framework of rural reconstruction, no provision is made for older farmers who desire to remain on their farms but have inadequate income. An annuity allows the progressive consumption of assets during the farmer's lifetime. This device could be of value to many farmers, but particularly older farmers who are poor in terms of current income but have fairly substantial net worth. It is envisaged that the annuity system would be self-financing and that expected appreciation in land values would permit the payment to a farmer of an annuity which was constant in real terms.

Poverty in Australia (the Henderson Report) has its origin in a non-parliamentary Commission of Inquiry announced by the Government in August 1972. Professor R. F. Henderson was appointed to undertake the Inquiry. Subsequently, in March 1973, the new Government appointed four new Commissioners and Professor Henderson became Chairman of the broadened Commission.

The First Main Report of the Commission is by far the most comprehensive study into poverty ever undertaken in Australia. In order to produce the report the Commission arranged for the Australian Bureau of Statistics to undertake two national surveys, organized 34 research studies—including the above University of New England and University of Melbourne studies—and held a large number of public and private hearings throughout Australia. The Report comprises twenty-one chapters which cover a very wide range of welfare and poverty related topics including: the extent of poverty, income support measures, welfare services, unemployment, urban and housing policies, rural poverty, the aged, aboriginals and migrants. For the purposes of this review the main focus is confined to the rural poverty aspects of the Report.

Estimates of the number of farm families with low incomes in 1973

were derived from the national survey by the Australian Bureau of Statistics. The number of adult income units receiving farm incomes below the poverty line in 1973 was estimated to be of the order of 12 per cent. The importance of net worth for farm families is strikingly shown in one of the estimates in Table 11.2 which indicates that 23 per cent of adult income units with farm incomes of less than 20 per cent of the poverty line had a net worth of *at least* \$71,000.

The Henderson Report endorses the Farm Household Relief Scheme proposed by Musgrave *et. al.* as a method of short-term income maintenance, but suggests that the scheme be incorporated in the Rural Reconstruction Scheme, rather than be administered by the Department of Social Security. A major proposal of the Henderson Report is for a guaranteed minimum income scheme with a proportional tax on private income for all adult income units. That is:

$$\text{Disposable income} = \text{guaranteed minimum income} \\ + (\text{private income} \times (1 - \text{tax rate})).$$

If this scheme were to be introduced short-term income grants as part of rural reconstruction would become unnecessary.

The guaranteed income scheme, which is outlined in broad terms only in the Report, is but one variant of what is perhaps more widely known as a negative income tax plan, in the sense that below some break-even level of private income an income unit receives a *net* money transfer from the Government whereas above the break-even income level the Government receives a *net* money transfer from the income unit. It is well known that because of the concessional procedures allowed in its calculation taxable farm income (and taxable income in other self-employed businesses) is a poor indicator of *real* income. And the implementation of any guaranteed income or negative income tax scheme would require that adjustments be made to income tax data to establish a more accurate measure of real income. There is also the important but largely unresolved question of how differences in net wealth should be treated under a guaranteed income scheme. Whether or not such a scheme were to be implemented, the Commission saw, and I believe rightly so, the self-financing annuity scheme proposed by the University of Melbourne group as an important long-term component of an overall welfare program for farmers.

The above reports have added immensely to our previously very limited knowledge relating to poverty in Australia. The main gaps which still exist in our knowledge about poverty are attributable, in my view, to the fact that the survey data which has been presented consists essentially of a series of snapshots of the distribution of income at particular points of time. Some recent research in the United States suggests that much poverty there is temporary, being determined by such factors as changes in family composition and in the number of family members earning an income. In farming much 'poverty' is almost certainly temporary being explained by the high variability of farm incomes over time. It would seem that at present we do not know enough about the dynamic processes which generate poverty in Australia and the extent to which the existing survey poverty measures represent temporary low incomes or long-term poverty.

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Trade Policy and Economic Welfare. By W. M. CORDEN. (Oxford: Clarendon Press, 1974.) Pp. 423, paperback \$8.80, cloth \$23.60, ISBN: 0 19 828199 4.

Corden's writings have had a major influence on the partial and general equilibrium analysis of protection by economists, including agricultural economists. In recent years Corden has been closely associated with the development of effective protection theory—the positive study of structures of trade taxes and subsidies. *The Theory of Protection* (1971) dealt with this area.

In his latest book Corden is concerned primarily not with positive theory, but with *policy* towards industries producing tradeable goods. He writes: 'Upon positive theory rests normative theory—the theory of policy. The foundation of the normative theory is the familiar argument that countries can mutually gain from trade.' (p.5). Early in the book the misconception that theory says free trade is best is corrected. 'Appreciation of the assumptions under which free trade or alternatively any particular system of protection or subsidization is best, or second-best, third-best, and so on, is perhaps the main thing that should come out of this book' (p. 8).

From the viewpoint of Australian agricultural economists, the book has the big virtue of concentrating on the entire set of tradeable activities. It is all too common in Australia for policy discussions to focus unduly on industry sectors (e.g. farming or manufacturing) rather than on the tradeables sector as a whole.

In some respects the title of the book is misleading. Much of the book is concerned with analyzing ways of encouraging or discouraging particular types of production, consumption or factor use rather than with *trade*. However, an important function of the book is to point out that many of the purposes for which taxes/subsidies on imports or exports are advocated are better served by other policies.

The analytical framework for the book is contained in chapters 2 and 3. These chapters are called The Theory of Domestic Divergences and The Four Assumptions of the Theory of Domestic Divergences. The other chapters draw on this framework in looking at a range of topics including protection and income distribution, industrialization, terms of trade, protection and monopoly, infant industries, protection and capital formation, dynamic aspects of trade policy, protection and foreign investment and protection and cost-benefit analysis.

Several chapters contain material that will be useful to agricultural economists engaged in preparing or assessing cases for assistance to industries or projects. The discussion of the dismantling of protection in Chapter 13, risk in Chapter 11 and protection and benefit-cost studies in Chapter 14 are examples of this material. Teachers in the area of agricultural policy are likely to be interested in the notion of a *conservative social welfare function* introduced in Chapter 5. This gives low weights to increases in incomes and high weights to income decreases. Teachers and others interested in the theory of policy will probably find Chapters 2 and 3 the most interesting part of the book. While the theory of domestic distortions approach to resource allocation policy has been expounded elsewhere, Corden's presentation is particularly clear.

In Chapter 2 a distinction is drawn between divergences and distortions, terms which are often used interchangeably. The term 'marginal divergence' is used by Corden to encompass differences *due to any cause* between marginal private and marginal social benefits or marginal private and marginal social costs. A 'marginal distortion' is a divergence caused by government policy—e.g. a tax or subsidy other than the first-best policy for correcting a divergence. Divergences in situations of market failure, e.g. externalities or monopolies, are therefore not classed as distortions.

Chapter 2 includes a discussion of the ranking of policies for removing a marginal divergence. A first-best policy is one that creates no by-product distortion, a second-best policy is one that creates one by-product distortion, a third-best policy is one that creates two by-product distortions and so on. This approach to the ranking of policies is conceptually useful. In practice, however, when there are many divergences other than the one under consideration the welfare ranking of policies may not be indicated by the number of by-product distortions they cause.

The efficiency of different policies for achieving a range of economic and non-economic objectives, each considered in isolation, is a major subject of Corden's book. However, no easy solution falls out of the analysis to resolve the question of 'tariff compensation' assistance for rural industries in a world of many divergences. This is of course the second-best issue of most interest to Australian agricultural economists, comprising the main policy matter in the 1974 Green Paper on Rural Policy and being the subject of articles by S. F. Harris and P. J. Lloyd in the previous issue of this *Journal*. Corden's discussion on pages 367-9 of second-best policies of assistance for one industry when protection for just *two* other industries is constrained should disillusion anyone who persists in the view that the problem is not a very difficult one.

In Chapter 3 Corden allows for the presence of (i) distortion costs of raising taxes; (ii) collection costs of taxes; (iii) disbursement costs of subsidies; and (iv) income distribution effects of tax/subsidy policies. Most writers on the theory of domestic distortions have explicitly or implicitly assumed these effects away. The general import of Corden's argument is that their existence has little significance for the conclusions of distortions theory, especially in relation to developed countries with efficient tax collection and revenue distribution systems. In particular the non-costless nature of collecting taxes and paying subsidies does not invalidate the central result that taxes or subsidies on *trade* are only second, third or n-th best ways of treating domestic divergences.

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Spatial Sector Programming Models in Agriculture. Edited By E. O. HEADY and U. K. SRIVASTAVA. (Ames, Iowa: Iowa State University Press, 1975.) Pp. 484, ISBN: 0 8138 1575 4.

This book stands as a monument to the pioneering effort devoted to developing large-scale spatial programming models for American agri-

culture over the past twenty years at Iowa State University. It may also serve as a sign-post to future developments.

The book contains twelve multi-authored chapters. The common denominator in the list of editors and contributors to chapters is Earl Heady. The introduction puts the Iowa models in context by giving a brief survey of aggregative programming models which have been developed for agriculture in other parts of the world. Five early chapters describe a series of models developed from 1954 to about 1969, in order of increasing sophistication. The prototype model in Chapter 1 dealt only with crop production. The model described in Chapter 6 includes livestock and crop production, representative farm situations using three farm size categories and land, pasture, labour and capital constraints.

Three chapters specifically illustrate the policy uses to which the models may be put. Chapter 3 looks at the costs of land-retirement programmes in the early 1960's, using the Chapter 2 model. Chapter 7 investigates a similar problem for 1975 from the viewpoint of 1965, using the Chapter 4 model. Trade-offs between net farm incomes, government costs, and the amount and distribution of land retired are studied for different government programmes and three possible 1975 commodity price levels. Chapter 8 looks at the impact of four alternative systems of price formation on the income and employment generated in rural areas and industries for 1972. Reference is made to the use of an input-output table.

The four remaining chapters describe novel extensions of the basic model. Chapter 9 deals with the optimal regional allocation of water for agricultural production, making various assumptions about trends in water prices, population and technology. Chapter 10 considers the use of the Chapter 9 model with constraints added for the maintenance of environmental standards. Although the actual constraints added apply to soil loss, inclusion of further constraints on fertilizers, pesticides and livestock wastes is envisaged.

Chapter 11 describes an important extension of the model to endogenous determination of commodity prices *via* regional linear demand functions for commodities. Because of the difficulties in running the ensuing large quadratic programming models the production-transportation matrix is based on the simpler model of Chapter 5 rather than Chapter 6. Finally Chapter 12 describes a model for finding optimal modes of grain production and transportation between producing and consuming regions.

The models are well presented. Objectives, mathematical structure, assumptions, data and results are repeatedly set out in orderly fashion. Copious use is made of an outline of the USA for illustrating the demarcation of producing and consuming regions, and transportation flows. All tables (and there are practically 200) have been relegated to four microfiche transparencies enclosed in the back cover of the book. This does not make for quick referrals from text to tables, but otherwise the book would have spilled considerably over its present 500 pages.

The book's contribution is partly documentation of research experience, partly illustration of scope and potential of these models, and partly illumination of comparative advantages in agricultural production of different regions in the U.S.A. The Australian reader is probably

more interested in the first two functions of the book, and to that extent the inaccessibility of the tables is no great drawback.

The models and their applications described in the early chapters have been previously described in Research Bulletins, and some are rather dated. For example, explanations in Chapter 1 about how 1965 prices were predicted using 1955 data is surely only of historical interest. On the other hand, inclusion of these chapters makes for completeness in documenting model development.

A proposition in the Introduction is that it is not economic models and computer technology but lack of suitable data which holds up the more widespread application of spatial equilibrium models. However, little mention is made of the problems inherent in such models. For example, there is no discussion of the implications for prediction and policy formulation of stochastic production and demand, aggregation bias or dynamic adjustments such as stock carryovers and changes in the sizes and numbers of farms. To the extent that the models are long-run equilibrium models for regional planning purposes such considerations may not be important. However, even in the context of planning there could usefully have been some discussion of the welfare implications of using objective functions specifying the minimization of costs in partial equilibrium models, particularly when the analysis is extended to consideration of environmental costs. Also, a concluding chapter summing up the strengths and weaknesses of the models would have been interesting.

Even so, Heady and his associates provide in one volume a substantial demonstration of the feasibility and worth of developing a variety of large-scale programming models for agriculture. It is a volume which should appeal to other researchers engaged in similar work, and should be a useful reference book in courses covering regional planning.

JOHN KENNEDY

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World Food Production, Demand and Trade. By L. L. BLAKESLEE, E. O. HEADY and C. F. FRAMINGHAM. (Ames, Iowa: Iowa State University Press, 1973.) Pp. 417, ISBN: 0 8138 1800 1.

Throughout recorded history there have been recurring waves of widespread pessimism about the world's ability to feed its growing population. The early 1970's has been one such period of international anxiety, following the depletion of the large grain stocks of the previous decade. The world food outlook both in the immediate future and over the longer term has been the most uncertain for many years.

This book is therefore a most topical one and has already received wide attention. The authors have undertaken an exhaustive study of the world food situation, making projections of demand, supply and trade to 1985 and 2000. Their conclusions highlight the enormous political and intellectual challenges to be faced in improving the food situation throughout the world, and particularly in the developing countries. They indicate that, potentially, world food supplies can in-

crease relative to demand over the remainder of the century. The realization of this potential, however, will depend primarily upon successful programmes of birth control in countries having high birth rates and, in addition, on the growth of food production in countries having large unexploited agricultural resources.

The demand/supply projections cover some 96 countries (China is excluded from the general analysis because of data problems) and are made for 73 commodities, although the most reported for any one country is 41. The demand projections are based mainly on population and income changes, while those for production are derived from area and yield trends where data are available and in other cases are estimated from production data only. Constant prices are assumed, with demand and supply being projected independently and on an individual commodity basis rather than in a simultaneous system of jointly determined relationships. The authors recognize that the methodology hardly conforms to the theoretical ideal. Their approach has of necessity been a pragmatic one, constrained by the amount and nature of the data available for many countries.

The study is notable, however, in that it incorporates a detailed investigation of land resources in developing countries, which was carried out by a soils specialist. This represents a major attempt at estimating the bounds to the expansion of land resources. Previous studies have considered additional land for cultivation on a more aggregative or trend basis. A further methodological development of note is the extension of the demand/supply analysis to a consideration of trading implications, through a linear programming model of the distribution of cereals and fertilizer materials among surplus and deficit producing countries of the world. This is one of the first fairly elaborate attempts at determining global trade patterns at future points in time through a formal optimizing model.

Time series data used in the study cover varying time spans, extending from about the late 1940's to the mid 1960's. The new high yielding varieties of wheat and rice were only in the very early stages of commercial introduction towards the end of this period, and no attempt is made to incorporate shift variables to express the possible effects of the green revolution. However, modifications potentially generated by the green revolution are discussed qualitatively. The new technology has highlighted the need for a 'package' approach, involving appropriate practices and inputs together with policy and institutional changes, if significant gains in output are to be achieved.

The book is well structured in terms of chapter layout and sub-headings. The exposition of the methodology is one of the most explicit that this reviewer has encountered in projection studies. The results are presented in great detail but the reader is assisted by succinct summaries in each section. Particular attention is also paid to indicating the sensitivity of the results to variations in the underlying assumptions.

There have been later global projection studies incorporating more recent data, such as the USDA's Foreign Agricultural Report No. 98, *The World Food Situation and Prospects to 1985*, of December 1974—which incidentally reaches much the same conclusions. Nevertheless, researchers involved in projection work will find the book a valuable reference document. The land resource study and the trade model are

important innovations and much useful information is brought together and reported in a form which is not readily available elsewhere.

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World Food Problems and Prospects. By D. GALE JOHNSON. (Washington: American Enterprise Institute for Public Policy Research, 1975.) Pp. 83, US \$3.00, ISBN: 0 8447 3165 X.

Professor Johnson has presented a very timely study of the causes of the 'food crisis' of 1973 and 1974 which resulted in dramatic increases in the international prices of food products and widespread shortages of food in the developing countries.

Johnson argues that there has been a great deal of public misconception about the reasons for the recent world food problems. He cites six different factors commonly regarded as being responsible for these problems: the poor crops obtained in major agricultural producing areas of the world in 1972 and 1973 as a consequence of adverse weather conditions during those years; the decline in the Peruvian anchovy catch in 1972; the large purchases of grain by the Soviet Union in 1972; rising affluence (increasing per capita income) in the industrial countries during the last decade which significantly increased the demand for livestock products and thus for feed grains and oilseeds; the decline in the level of the world's grain reserves; and the various devaluations in the U.S. dollar which contributed to an increase in commercial export demand.

Johnson considers these factors did play a part in bringing about the 'crisis', but argues they were not of sufficient importance to cause the extremely large increases in grain and other food prices which occurred between mid 1972 and 1974. An examination of FAO and USDA data on world food production for instance reveals that per capita food production in 1973 was at least as great for the world as it was in 1971, despite the inclement weather conditions which prevailed during 1973. The decline in the production of fish meal from Peruvian anchovies, as a further case in point, represented the equivalent of only 750,000 tons of soybean meal or 1 per cent of the world production of oil meals. In all, these various market factors are estimated to have accounted for no more than 65 per cent of the total increase in the international prices of grain between 1972 and 1974.

The remainder of the rise in grain prices is attributed by Johnson to the pricing policies pursued by Governments in several of the major producing countries. These policies distorted the allocating effects of the price mechanism by fixing the domestic prices of grain or grain products below their market clearing levels (though this obviously occurred more by accident than by design in the case of Australia!). With prices artificially depressed, no incentive was provided for consumers in the major producing and consuming countries to reduce their consumption of grain, nor were the proper signals provided for producers to expand their output to meet the increases in world grain consumption which occurred during these years. The

resulting shortfalls in supplies were consequently transmitted to the international market, causing prices to rise to much higher levels than would have occurred in the absence of restrictive pricing policies in the major producing countries.

Turning to the long-term problems associated with the world food situation, Johnson then addresses such questions as: Are higher food prices here to stay? Can world food production keep pace with future population growth? Does the potential exist for increasing per capita food supplies in the developing countries? His conclusions are for the most part optimistic. He expresses confidence that the rapid advances made in agricultural technology during the post-war period will continue in future years so as to ensure a long-term decline in the real prices of farm products. He rejects the Malthusian-type forebodings of widespread starvation in the face of continuing increases in world population, arguing that there exist no economic or scientific reasons to prevent a substantial improvement in the food consumption of the poorer people of the world over the next few decades. Most of the steps necessary to achieve this upgrading in per capita consumption, he notes, could be taken in the developing countries themselves through a greater investment in location-specific agricultural research, an increase in the availability of modern inputs (machinery, fertilizer, insecticides, herbicides etc.), an expansion and improvement of irrigation facilities, and above all, through a reduction in the growth rate of the population.

Johnson's principal doubt concerning the prospects for an improvement in the world food situation is whether the Governments of both the developing and the industrial countries possess sufficient political will to achieve such a goal. There is a risk that any small improvement in world food supplies will generate an atmosphere of complacency amongst Governments as occurred with the Green Revolution of 1967. The problem is to ensure that policies are developed which are long-acting in their effects and not simply of a stop-gap nature. Johnson closes his book with a solemn warning. 'It cannot be said that the world has used the time since 1967 at all effectively. The same mistakes should not be made again. The stakes are too high.' (p. 83).

The book is written for a general audience and, as such, makes for easy reading. It is well documented and tightly argued, thus providing an important contribution to the current debate on world food problems.

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Food Aid and International Economic Growth. By UMA K. SRIVASTAVA, EARL O. HEADY, KEITH D. ROGERS and LEO V. MAYER. (Ames, Iowa: Iowa State University Press, 1975.) Pp. 160, ISBN: 0 8138 0640 2.

Srivastava *et. al.* have set themselves a formidable task in attempting 'to better quantify the effects of previous food aid programs on development, producer and consumer welfare, agricultural progress and fiscal

structures in recipient countries.' It would be no surprise if they did not fully achieve their objectives. The food aid programmes investigated are those deriving from P. L. 480 and related U. S. laws. The reference country is India.

The book's first chapter begins with a useful summary of the origins and evolution of legislation under which U. S. food aid programmes have been administered, together with data on quantities of aid distributed. This is followed by a model purporting to show that food aid, by reducing the foreign exchange 'gap' of the recipient country, promotes economic growth whenever the foreign exchange 'gap' exceeds the domestic savings 'gap' which, according to studies cited by the authors, is the case for many low-income countries. The model embodies no significant theoretical innovations. In common with other 'gap' models, it implicitly assumes that foreign exchange rates are fixed. On the basis of this model the authors claim (page 17) that 'Food aid has bridged the food gap and helped accelerate economic growth in the recipient countries.' I find little in the model to convince me of the validity of this assertion.

The remainder of Chapter 1 is devoted to an exposition of a multiplier process by which food aid could conceivably generate additional demand for food produced in the recipient country. In essence the argument is that if food aid is channelled to investment projects which create new employment and income, the additional income generated through the investment multiplier coupled with a high income elasticity of demand for food could produce a shift to the right of the demand curve sufficient to raise domestic market prices. The argument is intended to counter the hypothesis that food aid lowers domestic food prices, thereby reducing incentive to expand domestic production. It is not clear to me that the authors' argument for distribution of food at concessional prices or as wages in kind is valid. What would happen if the government sold the food on the open market and used the proceeds to finance investment projects?

The first part of Chapter 2 is devoted to an econometric model, comprising seven equations, which is used to test hypotheses, especially the price disincentive hypothesis, about the functioning of the cereal market in India where food aid is distributed through 'fair-price' shops at prices below those in the open market. The authors claim their results show that distribution of P. L. 480 aid at these lower prices has reduced open market prices and domestic supply by only small amounts. However, lagged open market price, upon which cereal supply (a component of real per capita income) depends, concessional market price, quantity of food aid and quantity of cereals procured by government from domestic supply are treated as exogenous variables. These assumptions raise questions about the extent to which the model captures essential features of the Indian cereal markets. The statement (page 44) 'As the government increases internal procurement of domestic cereals to support prices, the need for net withdrawals to control inflation of cereal prices and to satisfy other government demand . . . decreases', reinforces these doubts, as does the absence of a variable covering net changes in commercial stocks. Typographical errors in notation and imprecise definition of some variables compound difficulties in interpreting results.

Reiteration of the argument that the grant component of food aid is low and has declined over time is merited (Chapter 3), because public disenchantment with results of aid programmes may stem from overestimation of magnitudes of grants and concomitant illusions about likely results.

The analysis of the alleged inflationary effects of counterpart funds is obscure (Chapter 4). Monetarists would contend that since central authorities *could* adopt policies to eliminate inflationary tendencies, the issue has no substance. Interesting issues, such as the way in which counterpart funds affect the grant component of aid, are not investigated.

The concluding chapter includes recommendations for future policies. These basically constitute a plea for an increase in real quantities of food aid, distribution at concessional prices and for a guarantee that the volume of aid will not fluctuate over time. Whether these recommendations are sensible depends upon whether the case for food aid is valid. Unfortunately, but not surprisingly in view of its complexity, that issue is not resolved conclusively in this book.

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Rural Industry in the Port Phillip Region, 1835-1880. By LYNNETTE J. PEEL. (Melbourne: Melbourne University Press, 1974.) Pp. 196, \$17.40, ISBN: 0 522 84064 7.

All human societies are in varying measure products of their past histories. Some glory in their past to the neglect of the present and fail to grasp the opportunities offered by the future. Others, imbued perhaps with revolutionary ideas, find contradictions in their past and rewrite their history to accommodate the ephemeral needs of the present and their visions of the future.

I like to think that we in Australia steer a middle course between such extremes. Certainly Dr. Peel has gone to great pains to give her readers a balanced, objective account of the first 45 years of European settlement in the Port Phillip region. The result is a book which is interesting and absorbing though not entertaining unless one is entertained by stories of the consequences of the human propensity to forget lessons of the past and to pursue a course based on preconceived theories in the face of knowledge gleaned from practical experience. It is solid fare, obviously carefully researched and extremely well documented. It is certainly recommended to the researcher who wishes to trace the origins of many of the characteristic features of Australian rural industries today, although it is necessary to remember that some of the patterns of settlement and land development described in this book originated in New South Wales and Van Diemen's Land where a generation or more of experience had already been accumulated in the art of adapting to the Australian environment.

The book is a mixture of straight historical description and some appraisal of the various cultural, social, economic, legal and administrative influences which combined to determine rural development in the period. It begins with a useful outline of the physical environment,

describes strengths and weaknesses in the earliest settlements, emphasizes the influence of country of origin and sociological background of the settlers and shows how attitudes towards various types of farm production and land tenure developed through the years. The effects of the gold rushes are adequately analyzed and the book concludes with a review of institutional influences, comprising government policies and the activities of societies, unions and other organizations which were important in rural areas. As the story unfolds we see economic and agronomic considerations brushed aside time and time again by those obsessed with social and political objectives and we see 'actions of uninformed but enthusiastic government and community leaders pressing for rural development in directions antagonistic to the major trends on the farms.' Nevertheless, by 1880 farmers in the older areas 'came to terms with their natural and economic environments . . . and created a viable, integrated ecological system encompassing man and his surroundings.'

A person reading this book and keeping in mind developments since 1880 cannot avoid noting how successive generations have failed to heed the lessons of history. Many settlers with little capital who took up relatively small areas of freehold land in the boom years of the 1830's were reduced to poverty by the depression of 1841-43. Those who managed to stay on were rescued by the gold rush boom, but this boom in turn led to policies of encouraging further creation of small farms, often as a result of sub-division. The end of the gold rushes and the advent of pests, diseases and unfavourable seasons brought many of these to poverty in the 1860's. Yet the legislation persisted with plans for new industries on small farms into the 1870s, with similar results. Equilibrium returned with abandonment by some and amalgamation by others, but 'closer settlement' continued to be a catchword, with disastrous consequences in the 1890's and again after World War I. Just as the gold rushes rescued the victims of ill-conceived settlement in the period 1835-1841, so World War II and the post war boom rescued many victims of the depression of the 1930's. And still the story continues! Many of the problems facing farmers today, shorn of their modern external trimming, were already in existence in Victoria within six years of first settlement. The dichotomy of the more affluent grazier and the struggling cropper was already established, and although later developments were in the direction of integration of livestock and crops on the larger holdings into a viable farming system, this was not possible on all holdings and the dichotomy has remained.

History is indeed a challenge to the policy maker; let's hope that some future historian will be able to record that the challenge has been successfully met.

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