FARM ADJUSTMENT AND THE ROLE OF GOVERNMENT*

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The problem of low income farms in Australia is examined in a dynamic context of overall farm adjustment. It is suggested that the pace of agricultural adjustment has been and is too slow, in the light of current and prospective market and cost trends. Consideration is given to both the case for, and the possibilities of, government action and the relationship of on-farm adjustment to the adjustment needs of the economic and the social infrastructure on the agricultural sector.

It is possible to think of the problem of adjustment as being basically the problem of small, or low-income, farms with farm adjustment policies, in consequence, being directed essentially at low income farms. On this interpretation we would concern ourselves primarily with farm amalgamation schemes and with measures to ease the movement out of the industry of low income farmers. Much of the general discussion of the last year or two has tended in this direction; this may well have appeared necessary in order to direct attention to the general question of farm adjustment in public discussion outside of professional circles.

The alternative interpretation is to ask why adjustment is a problem and how it relates to the low income farm problem. This second interpretation seems preferable since it puts into a dynamic context the debate over what level of income is 'low' or what is a 'small farm'; it also emphasizes that adjustment is not simply a question of resources moving out of the sector but also of them moving into and within the sector.

Why Adjustment is Needed

Adjustment is basically a reaction to change; it has been going on in agriculture since the beginning of time. The circumstances in which agricultures operate have changed rapidly in the post-war period and the existence of the problem of low income farms is due to the adjustment to changed conditions being too slow. The emergence of low farm income 'is not the result of economic recession or stagnation. On the contrary, its setting is prosperity and rapid growth'. [19, p. 63].

Farm industries, in general, face the consequences of change in the relative and absolute composition of demand by an increasingly affluent society; total demand for food, in particular, in high income countries tends to grow slowly. In the low income countries demand would expand more rapidly with income, and population growth is higher, but shortages of foreign exchange limit severely the effectiveness of this demand.

Farmers’ own progress and technological development tends to give

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them a capacity to expand their output much more rapidly than the
growth in total demand. The consequence is a tendency to surplus pro-
duction and to falls in prices.

The agricultural sector of an individual country may achieve a higher
rate of overall demand growth for its products through exports or import
substitution. But highly competitive conditions in international trade
in agricultural commodities, which reflect increasingly the effects of pro-
tection policies in the developed countries, make it difficult to sustain
rates of growth of commercial demand at all comparable to the capacity
to expand output.

On the other hand, as a concomitant of progress in the non-farm
sector of the economy, real incomes and hence the real cost of labour,
including the opportunity costs of the farmer’s own labour (and asso-
ciated skills) tend to increase.

Moreover, unit input costs continue to rise, whether because non-
farm productivity growth tends to be distributed by way of wage in-
creases rather than reduced prices, or because no country appears able
to maintain full employment without inflationary price increases. In
response to rising unit input costs and downward pressures on output
prices, farmers attempt to increase productivity and to reduce costs;
they do this by substituting capital for labour, and through the applica-
tion of new technology and management practices, normally with further
increases in production and in the minimum economic size of enterprise.

In sum, with progress, a given volume of agricultural products can
be produced by a smaller volume of resources. This, of course, has
over time been the contribution of agriculture to overall economic
growth. Unless demand is growing sufficiently rapidly or unless re-
sources withdraw from the sector, surplus production or lower prices
and low income conditions arise.

The Australian Situation

Australian farmers have, in general, fared better than those in other
advanced nations in maintaining their incomes at something like rela-
tivity with the rest of the community.

In recent years, however, it seems evident that increasing downward
pressure is being placed on income levels in the farm sector. Compared
with wage and salary earners, average incomes of farmers declined rela-
tively over the period from 1953-54 to 1965-66, though not significantly
in comparison with others classified as self-employed [24]. The evidence
suggests that there has been no improvement and probably some de-
terioration since then. The reasons for this would include the following.

(i) While the rate of increase in labour and other input costs is
still lower than in many developed overseas countries, per unit
input costs have increased by some 2 to 3 per cent per year over
the past 15 years and the rate has increased in the past year or
two.

(ii) There has been a slowing down in the expansion of market
opportunities with, if anything, increased pressure on agricul-
tural export prices.

(iii) Extended periods of favourable seasons followed by widespread
droughts since 1965-66 may have deferred and then accentuated
the underlying income pressures.
More importantly, farm incomes in recent years have reflected governmental direct and indirect financial assistance at levels substantially above those of earlier periods [8]. At the aggregate level it is reasonable to argue that the farm income situation has deteriorated. The existence of low income farms is one special facet of this overall problem.

The Low Income Sector

If farmers transferred quickly to alternative occupations when their incomes reached relatively low levels, the supply of agricultural products would better adjust itself to commercial demand and, while the prices of the non-labour resources in agriculture would also fall, average farm incomes would be maintained at levels closer to those obtainable elsewhere. For various reasons, farmers tend not to leave agriculture until forced out by low levels of income and/or by high debt. Moreover, those leaving are frequently replaced by new entrants with, in many cases, an unwarranted optimism about their capacity to raise income levels.

In 1967, McKay, using B.A.E. survey data, estimated that something like 80,000 farms in Australia regularly earned less than $2,000 for their operator's labour, management and capital investment [17]. McKay's table which summarized the B.A.E. survey information available on net farm incomes at levels of below $1,000 and below $2,000 per annum is presented with the inclusion of more recent data as Table 1.

As may be seen from this table, subsequent B.A.E. surveys, including uncompleted studies of the apple and pear and canning fruit industries, confirm that there is a very substantial number of farms toward the lower end of the income scale.¹

Views differ on the interpretation of net farm income figures of $2,000 or $1,000 and the extent to which they are, or are not, indicative of a problem of welfare or of efficiency.² Comparisons of welfare between farmers and those in non-farm employment are, of course, difficult. As Standen pointed out [21], a large number of factors need to be taken into account. While farmers do obtain benefits of a non-monetary income nature such as taxation treatment of (part) of their motor vehicle expenses, increments in land values etc., a correct balancing would allow for increased country costs due to freights, for urban land value increases, and for a lack in the rural areas of many facilities available to city dwellers. Higher costs, and reduced availability of health and education services need to be recognized as well as perhaps more general issues of the basic quality of life.³

¹ In using the data from this table care should be taken to consult McKay's article for the details of definitions used, eligibility criteria for inclusion in the survey samples, and for the treatment of particular receipts or expenditure items in the surveys.
² See the discussion in Davidson [10] and Standen [21]. Standen has extended and systematized his discussion of the issues involved in such comparisons in a later paper [22].
³ Because different people will weigh the amenities and the disadvantages of rural life differently, the meaning of this will vary from individual to individual. On average, however, it is probably true that given an alternative of a city versus country location, the possessors of managerial skills would require a premium rather than accept a discount on their salary to be located in a country area.


### TABLE 1

**Number and per cent of B. A. E. Survey Farms with Net Farm Income less than $1,000 and less than $2,000**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Farms with Net Farm Income less than:</th>
<th>Survey Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1,000</td>
<td>$2,000</td>
</tr>
<tr>
<td></td>
<td>No.</td>
<td>Per cent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of Survey</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Population</td>
</tr>
<tr>
<td>Sheep Industry (1966-67)</td>
<td>10,189</td>
<td>11</td>
</tr>
<tr>
<td>of which Pastoral Zone</td>
<td>2,243</td>
<td>28</td>
</tr>
<tr>
<td>Wheat/Sheep Zone</td>
<td>4,600</td>
<td>9</td>
</tr>
<tr>
<td>High Rainfall Zone</td>
<td>3,346</td>
<td>9</td>
</tr>
<tr>
<td>Wheat (1964-65 to 1966-67)</td>
<td>2,528</td>
<td>6</td>
</tr>
<tr>
<td>Dairy Industry (1961-62 to 1963-64)</td>
<td>20,409(b)</td>
<td>33(b)</td>
</tr>
<tr>
<td>of which Manufacturing Sector</td>
<td>14,858</td>
<td>36</td>
</tr>
<tr>
<td>Wholmilk Sector</td>
<td>3,379</td>
<td>23</td>
</tr>
<tr>
<td>Beef Industry (1962-63 to 1964-65)</td>
<td>4,560</td>
<td>17</td>
</tr>
<tr>
<td>Potato Industry (1961-62 to 1963-64)</td>
<td>2,616</td>
<td>32</td>
</tr>
<tr>
<td>Dried Vine Fruit Industry (1965-66 to 1967-68)</td>
<td>297</td>
<td>10</td>
</tr>
<tr>
<td>Banana Industry (1959-60 to 1961-62)</td>
<td>2,013</td>
<td>52</td>
</tr>
<tr>
<td>Citrus Fruit Industry (1960-61 to 1962-63)</td>
<td>935</td>
<td>28</td>
</tr>
<tr>
<td>Berry Fruit Industry (1958-59 to 1960-61)</td>
<td>453</td>
<td>75</td>
</tr>
<tr>
<td>Apple and Pear Industry (1965-66 to 1967-68)(c)</td>
<td>597</td>
<td>31</td>
</tr>
<tr>
<td>Peanut Industry (1965-66 to 1967-68)(c)</td>
<td>80</td>
<td>14</td>
</tr>
<tr>
<td>Wine Grape Industry (1965-66 to 1967-68)(c)</td>
<td>405</td>
<td>18</td>
</tr>
<tr>
<td>Canning Fruit Industry (1965-66 to 1967-68)(c)</td>
<td>256</td>
<td>16</td>
</tr>
</tbody>
</table>

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(a) An updated version of the table, Table II, given in D. H. McKay, 'The Small Farm Problem in Australia', *Australian Journal of Agricultural Economics*, Vol. 11, No. 2, December 1967, p. 118. Reference should be made to that article for details of definitions used, eligibility criteria for inclusion in survey samples, and for the treatment of particular receipts and expenditure items in the surveys.

(b) Includes intermediate group deriving less than 50% of total milk and cream receipts from sale of wholmilk in the liquid milk market.

(c) Preliminary figures—subject to revision.
Clearly, not all farms averaging $2,000 or less are problem farms, although in my view a good many are, or are likely to become so, unless structural changes take place. Low net farm incomes of this order can reflect other factors—for example, an early development stage for the property, a high family labour component, a conscious desire for substantial leisure. Some are part-time or retirement enterprises or are operated by people who might not expect to earn a larger income in any alternative enterprise; as Gruen and Waring [13, p. 25] pointed out, in many cases such people could in other situations, be a greater drain on public funds. Similarly, $2,000 is not a poverty income level—such an income may not involve actual hardship in the absence of significant debts, medical and education expenses.

To my mind it is not important whether $2,000 or some rather lower or higher figure is the appropriate point to distinguish low from adequate income earners. The important thing is that a substantial proportion of Australian farmers appear to be earning incomes too low to give them much chance of financing the further investment necessary to enable them to maintain income parity with the rest of the community in the future. It is not sufficient that they should maintain their present income levels; inevitably if they cannot increase them they will become low income farms in the future.

The Pace of Adjustment

McKay [17, pp. 126-130] concluded, from looking at the dairy, sheep and wheat industries, that, for the periods covered, apart from wheat, the general position had probably not improved and could perhaps have deteriorated.4 For the sheep industry the situation has not improved subsequently; even allowing for some recovery from the effects of the present price and drought experience, the longer term position has very probably worsened as it has for wheat. For the dairy industry increased levels of assistance and continued departures from the industry have complicated an assessment of the current situation but it is not obvious that the position has improved.

Resource use adjustment in agriculture has certainly been taking place and has led to continued increased production and productivity. The movement of resources out of agriculture has also been not inconsiderable. Farm employee numbers have fallen over the last 10 to 20 years. The number of males classified as employers and self-employed in rural industries fell by some 40,000 between the 1954 and 1966 censuses (25,000 over the last census period to 1966) and there was a net reduction of some 7,000 commercial farms over the period between 1961 and 1966.

Similarly there has been some movement out of the farm industries at the low income level, notably in the dairy industry but also in some of the smaller industries such as the Tasmanian berry fruit industry.

In terms, however, of the overall income position of the farm sector, with the low income sector being part of the general problem, it seems reasonable to conclude that it is not evident that the problem is solving itself either by way of adjustments leading to a sufficiently rapid rate of

4 He considered the position of the dairy industry over the period 1950-53 to 1960-63; the wheat industry over the period 1954-57 to 1959-62; and for the sheep industry the period 1952-53 to 1962-63.
productivity growth or by a departure of resources from the farm sector at a sufficiently rapid rate.

Moreover, there appear no grounds for expecting that, hopefully excepting drought, the adverse pressures currently affecting farm income levels will be reduced significantly in the reasonably near future. It is easy to be unduly pessimistic about future prospects since it is easier to foresee problems than it is to foresee opportunities. In many respects agricultural policies must deal with problems or the avoidance of possible problems; it is easy, then, to overlook the great underlying strength of the rural industries, the high levels of efficiency, the clearly demonstrated capacity to change and adapt and to progress at a rapid rate. Yet it seems prudent to observe that for those commodities where expansion has been rapid in the past decade, the prospective rates of growth will be lower. This is true for wheat, sugar and cotton while for beef and wool the rate of growth is limited by the biological facts of life.

Moreover, apart from the implications of the general outlook for the range of our agricultural commodities, the pressures for major adjustments in a number of the rural industries will be increased significantly in the event that the U.K. (with a number of other European countries) enters the E.E.C.

Even if adjustment has taken place at a sufficient rate in the past—and there are clearly doubts about this—the probability is that it will be more difficult in an environment where markets for agricultural products generally are not increasing or are increasing slowly. This, as we have seen, is a likely prospective situation.

The Role of Government

A need for adjustment is a characteristic of all industries. In agriculture, resource use adjustment has been assisted by a variety of government measures and the role of government in this field—at State and Commonwealth levels—has been of long standing. Research expenditures, taxation concession on investment expenditures, special measures for rural credit, the manner in which the bounty has been used in the cotton industry and the Commonwealth Extension Services Grant are recent examples of Commonwealth measures largely if not wholly designed to assist the adjustment process. They assist, for the most part, adjustment to a higher level of production and lower unit costs but also to alternative enterprises. They do not assist adjustment to lower output or withdrawal of resources.

The justification for government assistance to the low income sector of the rural industries is perhaps worth considering, since in almost any industry one can find sub-marginal low income producers. This sub-marginal group of producers tends to be large and to remain in existence in the farming industries because:

(a) farmers can remain in the industry more easily at low cash income levels, by producing many of their subsistence needs and existing on relatively low levels of cash expenditures or sustaining themselves by running down their capital assets;

(b) they are inclined to remain despite low incomes because of special factors such as their attachment to farming as a way of life;
money incomes may be low but the farmer may remain to benefit from the appreciation of capital due to land value increases—realizable only upon sale of his property;

(d) on the other hand the sale value of farm assets may be low, particularly where there is a regional concentration of low income farms;

(e) movement off the farm is normally not simply a question of changing occupation—which itself, to many, appears difficult because of lack of training for other jobs or inadequate knowledge of opportunities—but also of changing their place of residence.

The special nature of the problem compared, for example, with small shopkeepers, is the heavier concentration of small farms in certain industry or regional groups; the lower availability of alternative occupations in close proximity; the generally higher degree of risk and uncertainty affecting both the demand and the supply side; and the relationship of the farming enterprise to the economic and social infrastructure of the region.

There is perhaps an equity as well as an economic argument for assistance on the grounds that some part of the pressures on the income position of the rural export sector arise from the fact of growth and development in the non-rural sector and from the particular measures of government policy that have been used to assist this growth [12, pp. 14-20]. Heady provides a more generalized argument pointing to the contribution of agriculture to the progress and prosperity of the economy, not simply through the earning of foreign exchange but through the provision of food and raw materials at declining real prices and possibly also, in the investment in the education and upbringing of those moving to the non-farm sector.5

Many policies designed initially to assist the smaller farmer have benefited mainly the larger commercial farmer. At the same time, almost by definition, the small low income farmer can do little about the low income problem—other than to leave the industry, frequently with a significant capital loss, possibly ill-equipped to earn an income and perhaps to house his family. As Daunt has argued [9], it would seem that the farmer has less alternatives open to him than the majority of the community to satisfy his wants—whether these are income, leisure, security, independence, status and so on. There seems therefore a case for a government role in increasing the alternatives so that they match those of the rest of the community by operating on the constraints that restrict his choice.

It could also be argued that society has a concern, if not for the farmer himself, at least for children of low income farm families. Low income levels may tend to reinforce low income aspirations and to perpetuate reduced perception of adjustment needs.

Given that the individual is best equipped to assess his own set of values, if he is content to accept a low income—and the possibility of an even lower one—in return for other non-monetary returns, then he would not be classed as a problem farmer. Decisions whether or not to accept adjustment assistance offered will need then to be completely

5... the distribution of the gains and sacrifices or costs of economic progress is the fundamental problem which arises under high stages of economic development.' Heady [14, p. 31].
This has been accepted by the Government as an essential basis for low income farm adjustment policies.

On the grounds of economic efficiency it can be argued that a case exists for government policies to deal with the low income question because the economy would benefit by using the resources elsewhere. This is not clear cut, because some non-land resources in agriculture may have little alternative use. Again, however, we are concerned with a dynamic problem and the extent of total resources with limited alternative use can be expected to decline. More generally, one could argue that the community benefits from economic change. The resistance to change can be expected to be less, the more the path is eased for those who lose out or are likely to lose out in the process of change. Assistance to this group may thus speed the rate at which change is accepted.

A further question is whether the adjustment which takes place autonomously is likely to be efficient or whether there are any measures which will improve its efficiency. For example, movement out of dairying in a milk processing plant area will affect the economics of that factory [4, p. 210]. Purchase of small properties by perhaps non-residents for grazing purposes may in some cases be less efficient, by creating diseconomies for other producers, than amalgamation with adjoining dairy farms and continued use for dairying. Again, those leaving the industry under normal market conditions frequently are not the least efficient managers, but those with a high capacity for adjustment.

If one accepts that there is an important role for government in the process of adjustment, including low income farm adjustment—and the case seems strong—it is necessary to examine what aspects government policy should attempt to consider.

The Wider Context of Adjustment

Clearly, adjustment of the low income farm sector has an important place in the discussion of adjustment in its wider context. More consideration needs to be given, however, to second level implications of effective farm level adjustments, i.e., the implications for rural towns, school systems, for rural marketing, processing and input supply systems. This is particularly important where there is a regional concentration of low income farms, and perhaps also for intensive crops such as those of the horticultural industries. For some industries, these second level effects may give rise to much more difficult policy problems than the farm level problems.

In addition, however, consideration should be given to the adjustment needs of the commercial sector. It is doubtful, for example, that even if effective, policy measures aimed at the low income sector of an industry would solve the adjustment problems of that industry. Thus we ought to give some thought to what the viable commercial farm will look like in 10 or 20 years time—and to see whether the present institutional framework is likely to be appropriate to assist the necessary adjustment.

Clearly, for example, however important it may have been in the past, the question of access to capital will become increasingly important in

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6 Some arguments could be adduced against the purely voluntary measures; in the field of employment, wage earners are not permitted to accept less than a minimum wage; concern for the farm children, who are often the worst affected by the low farm income problem.
the future. One U.S. study suggested that, in that country, by 1980 an investment of $200,000 per farm 'may well define the “lower bounds” for a successful commercial farm' [7, p. 15]. Command of increased capital is becoming a pre-requisite for commercial farm operations in Australia—a trend which must continue. This may require some change in institutional arrangements for a sector where ownership of the necessary land will tie up an increasing amount of capital and where with estate duties and, frequently, inheritance arrangements, some part of the property has to be repurchased each generation.

Joint farm ownership by more than one family does exist but does not appear to be common in Australia [23], but it may grow further in the directions suggested by Bergmann [3, pp. 226-228]. It may be that land leasing—separating ownership and management—may become more wide-spread in agriculture. Again, longer term mortgage loans with a reduced expectation on both sides of rapid repayment may be one basis for avoiding tying up resources in land ownership; if so, should this be encouraged by, for example, some kind of farm mortgage loan insurance, as now operates for housing mortgages? As Lewis has pointed out [16, p. 227] the failure to develop appropriate institutional arrangements to meet this problem could unduly favour the development of vertical integration or reduce the efficiency of family farm units due to capital rationing.

A further point is that, with the decline in the employed labour force in the rural sector we have become more of an owner operator based agriculture than in the past. The importance of the changes in the structure of the family—and the implications, for farm organization and operation, of the changes in the family structure and the consequential fluctuating labour supply on farms at different points of time become perhaps of greater importance that previously.7

Many other factors including, for example, the education needs of farmers, would also need to be covered in any definitive discussion of the wider adjustment issues. Quite apart from the contribution of education to meeting the need for increased managerial skills, it also has a further role, since policies to assist the adjustment process, including adjustment of the low income sector, will be more readily accepted the greater the understanding of the need for adjustment.

Important though on-farm adjustment is, adjustment in the off-farm industries supplying or servicing agriculture is equally important.8

What is Being Done about Low Income Farms?

Schemes have existed for some time in two of the States designed to assist the build up of farm sizes.9

At the Commonwealth level the major step in this area is the marginal dairy farm reconstruction scheme. It is importantly based on the proposition that a major barrier to amalgamation of properties is the existence of unwanted assets—farm house, dairy, sheds, etc., which

7 See, for example, the interesting discussion on this point by Nalson [20, Chapt. XIII].
8 For a discussion of adjustment needs which goes beyond the farm for the beef and dairy industries see Cassidy et al [6, pp. 161 et seq.].
9 In N.S.W., the build-up provisions of the Closer Settlement Scheme; in W.A., the Dairy Farm Consolidation Scheme.
make a neighbouring farmer unwilling to purchase at a price which the existing owner considers reasonably reflects the value of land and improvements. Provision is made for writing off such assets, the adjoining farmer paying only for the land and improvements useful to him.

Additional credit will frequently be needed to enable the amalgamated block to be developed appropriately but the present expectation is that existing credit facilities will meet these extra requirements. Clearly, this is an aspect to be watched closely when the scheme starts to operate.

Perhaps more significant is the fact that it has been accepted that the assistance needs of low income farms should be examined in other industries:

... the Government had announced earlier last year that special measures would be taken in relation to the problem of dairy farms that were too small to give their operators the chance of a decent living ... But we decided that a study should be made to see whether the principles we will be applying in the dairy industry could be usefully and helpfully applied in other rural industries where there is a small farm problem [1].

In other words, the Commonwealth accepts that it has a role with respect to the low income farm sector. In view of the delays in the acceptance by the States of the arrangements for the dairy farm scheme, it has been difficult to proceed very far with proposals for other industries; assistance for industry reconstruction is included, however, in the requests the woolgrowing industry has made to the Commonwealth [2, pp. 60-63].

What Policy Alternatives Exist for the Low Income Sector?

In general terms, it is not difficult to specify various possible general solutions, relating to the removal or easing of constraints on adjustment in the low income sector of the farm industries. Such a list could include the following, many of which have been introduced in one form or another in overseas countries or have been proposed as solutions here or overseas.

(a) To facilitate voluntary amalgamation of small farms:
  writing-off unwanted capital improvements
  provision of finance for a potential purchaser
  for land and fixed improvements
  for upgrading/changing enterprise
  for increased working capital needs
  removing or raising substantially limitations on
  total land holdings
  total water rights
  purchase by government on open market of small holdings for amalgamation, land retirement or alternative use, e.g., forestry
  pension arrangements (or negative income tax) for farmers beyond a certain age or where for other reasons departure is impracticable; pension payments deductible from value of estate
  with land being open for purchase by the Crown.

(b) To facilitate upgrading of low income farms where feasible:
  provision of technical assistance coupled with finance for new technology, change of enterprise, upgrading of livestock, etc.
  perhaps rescheduling and/or writing-off debts in certain cases.
(c) To facilitate departure of low income farmers:

- Vocational retraining schemes to facilitate movement of younger farmers
- Financial assistance for removal expenses and assistance in rehousing; optionally including living expenses for the change over period
- Improved education opportunities for country areas (benefiting both children remaining on land and improving opportunities to leave)
- Provision of employment opportunities in country areas.

(d) To avoid development of new low income farms:

- Some limitation on new entrants to an industry without restricting inflow of more efficient managers: e.g., transferable (transferable) quotas
- Prevention of subdivision of viable holdings (with appropriate safeguards)
- Perhaps some suggestion to financial institutions to avoid encouraging enthusiastic amateurs with limited capital and less likelihood of success.

Efficiency and Farm Size

Indivisibilities, of labour and of capital, seem to contribute significantly to the low economic performance of small farms in most industries. Davidson [10, pp. 147-150], however, has raised the relevant question of the extent to which size economies exist other than at relatively small farm sizes. This question is basic to the issue of adjustment and government assistance to adjustment, not simply at the low income farm level but at larger farm sizes where, in economic terms, the question of adjustment will become more important.

The quartile analyses of sheep industry data included in the survey report do suggest an association between enterprise size and economic performance, though the evidence from these analyses is far from conclusive because of the importance of other factors, particularly management.10

As well as pointing up indivisibilities on small sheep properties in terms of high ratios of labour and of depreciation to output, Malecky and Hoogvliet, using 1960-61 to 1966-67 sheep survey data, in work underway in the Bureau, suggest a steady increase in labour productivity as farm size (in terms of a physical output measure) increases, for all zones. The relationship fails to hold only at very large sizes, e.g. Pastoral Zone properties with over 20,000 sheep, and these cases seem explicable [18].

Using depreciation as an indicator of capital and relating it to an output indicator appears also to show a quite strong relationship between capital use efficiency and increased enterprise size.

Data from other surveys are being examined to test the relationship of enterprise size to efficiency. Firm conclusions are not yet possible though 'lumpiness' effects in capital and labour inputs appear evident. Clearly enterprise size is not a sufficient condition for increased efficiency;

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10 See [5]; Tables No. 26 (p. 22), No 57 (p. 46), and No. 88 (p. 70).
managerial efficiency is vitally important and its influence does complicate the analysis, particularly since we are concerned really with the possibility boundary, rather than the achieved result as shown in cross-sectional survey data.

The evidence so far available locally [15], and from overseas [11] does not suggest any strong reason for doubting the existence of economies of size in agricultural industries or for not proceeding with policies based on the assumption of their existence.

Some Practical Policy Issues

Some constraints on adjustment are matters primarily the responsibility of the State Governments—for example, questions of total land holdings, and maximum entitlements to irrigation water. These matters are already under review in one or two States with respect to the extent to which they inhibit desirable adjustments. Existing policies in the Commonwealth field will also need to be examined to see whether changes are desirable or feasible with respect to their effect on resource adjustment.

As we have already seen, the first major Commonwealth proposals are for the dairy industry. Logically it is difficult to see why a low income wheat, sheep, dried fruit or even beef producer should not have the same opportunities available to him as to a dairy farmer.\textsuperscript{11} The fact that there are more low income dairy farmers than, say, low income beef producers, would merely mean that there would be less beef producers than dairy farmers among the applicants for the available assistance. As any assistance provided will be on a voluntary basis it is easier to generalize the assistance across industries.

At the same time, different problems may arise in attempting to assist adjustment in different industries—what is suitable for a crop or livestock farmer may not be suitable for an orchardist; the effects on the processing or distribution systems may differ; changes in such facilities themselves may be necessary prerequisites for effective adjustment; or the alternative employment opportunities, without moving to another State, may be less in some cases.

In practical terms, specific proposals, arising out of discussions with individual organizations are likely to arise at the industry level. This is perhaps not too serious while we are tending to concentrate on the welfare rather than the economic aspects, though, even here, one area of low income farm concentration is in some of the irrigation settlements where an area approach would seem preferable to an industry one. A more generalized approach would ultimately seem desirable as reflecting the economic requirements of adjustment, even though some industry differences may need to be maintained.

The critical point is that adjustment is not a once and for all thing—it is a continuing process. Consequently adjustment measures will, if the earlier argument is valid, need to be maintained. This also implies that the form of adjustment assistance needs to be considered for industries not problem industries at this stage.

More generally, adjustment must continue and perhaps proceed more

\textsuperscript{11} And, in fact, the N.S.W. scheme is not restricted to any particular form of enterprise.
rapidly at all stages of the production, distribution and marketing process. We need to know more about the adjustment needs of the agricultural infrastructure, as well as the likely impact on the social and economic infrastructure of agriculture of on-farm adjustments—these questions will become increasingly important as the adjustment process continues. They also raise the much more difficult questions of rural versus urban population levels and distribution, and the costs and benefits to society of city populations.

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