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# farm policy

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# farm policy

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by A. G. LLOYD.

## Economic Efficiency in the Allocation of Agricultural Resources



*Evidence suggests that many sectors of Australia's agriculture are inefficient. This article explains what economists mean by "efficiency" and how various agricultural policies can affect efficiency within agriculture and the economy. It is a resume of a paper presented to agricultural scientists at the Australian and New Zealand Association for the Advancement of Science conference held in Sydney, 1962.*

**M**Y MAIN task is to explain what economists mean by efficiency. I will commence by distinguishing between two methods of raising efficiency. The first method, **improved techniques**, is the main pre-occupation of most agricultural scientists; the second method, **improved resource allocation**, refers to reshuffling our given resources so as to produce more from any given technique. We can reshuffle our land, labour and capital resources between uses (e.g. between the wheat and wool industries) or within uses (e.g. changing the proportion of say capital to land and labour, to attain the least-cost combination of resources which will produce a given industry output).

The economist has an interest in the first method — he can contribute something by evaluating the improved technique and studying its impact. But in this article I will be concerned solely with the less obvious, less spectacular and less understood method of improved resource allocation.

### The Meaning of Efficient Resource Allocation

Central to the notion of efficient allocation is the idea of "**opportunity cost**." The **real cost** of allocating a unit of resource to any one use is the return forgone from not using it elsewhere—the opportunity sacrificed. Thus the opportunity cost of investing say £100 million in "developing the North" is the return we might have obtained from the most profitable investment of £100 million in other uses—say £150 million. Unless returns from the North reach £150 million we have not allocated efficiently. (Returns must be discounted back to a "present value" at an appropriate rate, since £150 million accruing over 10 years is not as valuable as £150 million today). Thus it is not sufficient that resources are everywhere earning a profit. They must all be earning the same profit **at the margin** (though **average** return per unit of resources may vary widely).

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If the return on capital from the last (i.e. marginal) £1 million invested in the wool industry were 10 per cent and in the steel industry were 15 per cent, it would pay to re-allocate—to switch capital from wool to steel, and continue doing so until the marginal returns were equal at say 12 per cent. (Assuming diminishing returns, more capital in steel lowers the marginal return; less capital in wool raises it, since the least productive investments are trimmed first.)

An example from farm management may illuminate a wider field. Many farmers around Rutherglen in Victoria apply "maintenance" dressings of 1 cwt. of super per acre to perhaps one-third of the farm each year, because of limited funds. The same expenditure would yield 30 to 40 per cent more dry matter response if the rate were reduced to one-third rather than the acreage fertilised (after allowing for application costs and residual effects). Because of diminishing returns, the marginal return to fertiliser on the acres given the full application is much less than on the under-fertilised acres, and it pays to even up marginal products. For "under-fertilised acres" we may read "under-capitalised industries or regions," etc.

For perfect efficiency in resource allocation, the condition of equi-marginal returns must be satisfied between industries, between regions, between farms within each region, and within farms, and must apply to all resources — land, labour and capital. Only then could we claim — "We could not re-allocate anything and show a profit from the transfer."

This is a tall order, and it is difficult to imagine it being achieved by administrative decrees — by millions of simultaneous interlocking decisions governing everything in the economy. Perfect allocation is never achieved — for one thing, price changes mean that we are always shooting at a moving target with a very slow bullet.

Most of our resource allocation is done, not administratively, but by the price system, which co-ordinates millions of independent decisions made by producers and consumers. Viewed

from the consumer end of the system, rising or falling prices for a particular product represent a vote by consumers for more or less resources to be directed towards that product; from the producers' viewpoint, movement in prices for products and resources serve as indicators and incentives to producers to expand or contract output, and/or their usage of particular resources. Theoretically, the market forces operate so as to equate marginal returns.

### Some Misconceptions About Efficiency

As an indicator of efficiency, the value of **average** product per unit of resource is frequently used. For example, the average return per unit of capital (or labour or land) is higher in region 1 (or industry 1) than region 2; therefore, it is argued, extra capital should go to region 1 rather than region 2. Such reasoning is invalid — the criterion should be marginal return, not average return.

A low-income industry or region may give quite high marginal returns to capital, because inadequate capital has been invested and good investment opportunities remain available. Similarly, an industry or region may show high average returns per unit of resources already applied, though additional resources would yield little return.

In the name of efficiency, it has been suggested that dairying should be transferred from Queensland, where the average product of land, labour and capital is low, to Victoria, where productivity is high. Investigation might show that such a transfer would be desirable, up to a point, but not on this argument, which ignores marginal returns. Furthermore, dairying is not our only rural industry and such reasoning ignores the law of comparative advantage. E.g., Victoria might have an absolute advantage in both dairying and fat lambs, but if Queensland's comparative disadvantage is least in dairying, Queensland dairying should not be moved to Victoria on efficiency grounds.

Another misconception centres on the idea of "waste". In common parlance, the non-use of available resources is termed waste, e.g., empty spaces, or rivers running into the sea instead of being diverted to a dry inland, etc. However, all apparent waste is not economic waste, and all economic waste is not apparent.

On the latter point, a thriving district might be built up on the basis of closer settlement and irrigation, yet the project may have been economically wasteful. The fact that a heavy concentration of resources has given high and concentrated productivity proves little. An evaluation would demand that we consider what might have been produced had the labour and capital used in development been employed elsewhere.

But intangibles such as "opportunity cost" and "resource mis-allocation" do not cut much ice in comparison with the actual (or projected) concentration of material progress in an area, readily observable by the eye. This might be termed the "visual fallacy" — we feel we have got our money's worth from resources if the results are geographically concentrated and visually apparent. This is probably part of the explanation for some of the "conspicuous investment" that occurs.

Some members of the "Fill the Empty Spaces" school make frequent reference to "waste" without defining the term. If the exploitation of unused or "under-used" land, water, etc., costs more resources (as measured by money) than it will return in the long run, there is an absolute economic waste. In addition, the opportunity cost criterion must be fulfilled if relative waste is to be avoided.

Finally, agricultural scientists tend to be pre-occupied with the productivity of land, despite the fact that modern technology is making it increasingly possible and economic to substitute labour and capital for land. Land productivity, whilst very important, is inadequate as a single criterion of agricultural efficiency for all purposes.

### Some Policies Hampering Efficient Allocation

Per capita incomes in agriculture are often lower and more unstable than income in other sectors. Unfortunately the form of aid most commonly chosen to boost farm incomes, is to fix artificially high product prices. Where excessive resources are employed in an agricultural industry, the resulting fall in price and income (the signal and incentive to contract) is often deliberately offset by subsidy. Thus the signal is not only ignored, it is obliterated. This amounts to a political decision that the price system in agriculture performs poorly and inequitably in its job of **distributing incomes** between farmers and others and over time. But to correct maldistribution of income by using price subsidies prevents the price system from efficiently performing its other functions of resource allocation, and this can prove costly.

The results may manifest themselves as shortages (if prices are held down to subsidise consumers or to stabilise) or as surpluses, (such as seem to be looming now for Australian dairy produce and wheat). However, even when no shortages or surpluses in the commercial sense are apparent, the effect of price subsidies in causing resource misallocation can be costly to the community.

For example, assume the export price for wool returns a grazier a net £60 per bale; then it pays him to expand output so long as each extra bale costs him less than £60. By using more fertiliser, seed, labour, supplementary feeds, etc., the grazier might push his output to 100 bales—assuming that the 100th bale costs just under £60. (We assume each additional bale costs more because the law of diminishing returns operates.) Obviously no grazier is in a position to calculate so finely, but this does not invalidate the principle that I am trying to illustrate.

If a subsidy of £20 per bale is paid, the grower now has a financial inducement to push production beyond 100 bales to the point where the last bale produced costs just under £80, which point might be, say, 150 bales. Bales

101 to 150 would all have cost more than £60 worth of the economy's resources (on average, say, £68); but the economy would have received only £60 for them from the export market—a loss of £400. Yet the increase in output would have raised the grazier's income by £600—he has received a bonus of £600 as a reward for reducing the national income by £400.

A similar example would be that of a farm being attracted into or retained in dairying by a price subsidy, when in the absence of a subsidy the land would be used for beef, fat lambs, forestry or something else. In many districts it is easy to find farms which have swung from grazing into dairying in the past, to produce more export butter, and thereby reduced our national income. This applies if their net income, had they stayed in grazing, would have exceeded their net income in dairying, valuing dairying at export parity.

It has been estimated that price supports for dairying (subsidy plus high home-consumption price) cost the economy a minimum of £10 million per annum, mostly from the resource misallocations illustrated above. (This estimate is quite distinct from the "transfer payments," such as the £13 million per annum subsidy, which in themselves do not represent "real costs"—merely a transfer of income from taxpayers to dairymen.)

The costs of resource misallocation are insidious; they only become obvious when commercial shortages and surpluses appear. Until then they escape public notice, because they can only be determined by reference to "what might have been," and their estimation is a complex and technical matter. The agricultural economist therefore can play a valuable (though unpopular) role as a "social gadfly," in pointing out that **some** forms of aid agriculture involve such costs.

This contribution can help offset one of the major weaknesses of democratic economic policy. A policy measure which does £10 million worth of damage to national income which nobody feels or appreciates, but benefits members of the recipient industry sufficiently to influence their votes, yet

costs each consumer or taxpayer so little as to have a negligible influence on his voting, will clearly win more votes than it loses. Similarly, to remove the benefit will involve net electoral losses. When the costs of a policy are hidden or can be spread thinly and benefits can be concentrated, and when a vote is indivisible and economic illiteracy widespread, short term expediency can be expected to prevail in farm policy.

Our main farm subsidies in Australia are based on a claim for "average cost of production." The idea, first that this can be objectively and accurately measured, and second that this provides a figure at which price should be set, has been soundly discredited, most recently by the Dairy Industry Enquiry. If every industry or individual producer were given a guarantee of a price equal to cost of production (including "normal" profit) this would be equivalent to a national economic directive saying to each producer and industry: "Produce what you like in whatever quantity you like, regardless of what is needed." Admittedly, in the ensuing chaos of shortages and surpluses we would have achieved price stability and helped the low-income farmers.

**Stabilisation measures** which aim at preventing or moderating "unnecessary" price fluctuations could theoretically improve efficiency but often have the reverse effect. The difficulty consists in distinguishing between short-term and cyclical price fluctuations which turn out to be confusing and misleading signals to producers, and long-term ones which reflect basic changes in demand and supply conditions requiring production adjustments. Where adjustment downwards is called for, the tendency has been for stabilisation schemes to become "stabilisation upwards." "Forward prices" announced to the farmers before the season commences have some claims to promoting efficiency, but are not a feature of Australian stabilisation schemes.

Given that the "family farm" is a desirable social institution to which governments are committed, it is still worth pointing out that the small family farm represents less efficient resource allocation than the large family farm. Our **Closer Settlement Policies**

need scrutiny with respect to economics of farm size and for other reasons, as was pointed out in the recent report on Closer Settlement which was published in the September issue of Farm Policy (Vol. 2, No. 2).

Most economists would agree that **tariff** and **taxation** policies can lower the efficiency of resource allocation in the pursuit of other objectives such as self-sufficiency and income equality. The economist, as such, deserves no more influence than other citizens in making the choice between conflicting national objectives. But he can help policy-makers towards a rational choice by estimating the costs of pursuing particular objectives which conflict with efficiency, and in suggesting cheaper methods of achieving those objectives. On efficiency grounds we should also re-appraise our **rural credit** and **tenure** policies.

### Some Policies Fostering Efficient Allocation

There is considerable scope for aiding Australian agriculture by methods which do not hamper efficient allocation and in fact may promote it. Generally, these "desirable" methods are those which do not operate directly on product prices.

However, aid is frequently in the form of producer prices fixed above export parity, as in the case of Australian dairying, and political considerations suggest that this will continue. In such cases, the costs of resource misallocation can be eliminated without reducing producers' incomes by adopting a **transferable quota scheme**, as suggested to the 1960 Dairy Industry Committee of Enquiry by a number of economists.

Much misallocation in agriculture derives from "market imperfections," particularly in the capital and labour markets. In farming there are many reasons for questioning the theory that funds will automatically flow towards their most efficient use. Many agricultural economists believe that our **rural credit facilities** need an overhaul. For example, from the viewpoint of allocation efficiency, lenders place undue emphasis on equity rather than productivity in the evaluation of loan applications.

Credit concessions for agriculture rest largely on the belief that there is a severe problem of "capital rationing" in agriculture, i.e., agriculture is "under-capitalised." This implies that the returns from additional capital investment in agriculture are higher than in other sectors. The proposition has not been proved for Australian agriculture. In the early 'fifties it was probably true, but the assertion has been weakened by the "cost-price squeeze." Some of the **taxation concessions** given to agriculture as stimulants to investment also depend largely on the assertion of high marginal returns to capital in agriculture.

In my view it is unreasonable to expect the banks to greatly modify their normal practices to accommodate all the desirable changes. This suggests the need for action through special agencies, preferably with special knowledge of farm investment projects.

In some of the low-income rural industries, government aid to promote farm migration and amalgamation of small holdings would raise efficiency and farm incomes. If current world trends in supply and demand persist the transfer of farm labour to other industries offering higher returns to labour will become increasingly profitable to the economy (i.e., Closer Settlement in reverse). For those who lack occupational skills, the confidence and the capital necessary to make a change, government assistance programmes can be devised. Such programmes can be justified on the grounds that a man who leaves an inefficiently small farm in an over-crowded industry makes a two-fold contribution—his resources earn more elsewhere, and his move can permit a neighbouring small farm to expand to an efficient size.

Those who do not favour any proposal without a precedent can refer to the U.K. Small Farmers' Scheme, the U.S. Farmers' Home Administration, and our own Reconstruction Scheme for wheat farms in the 'thirties. Such schemes cost a fraction of price subsidy programmes (less than one per cent of total aid in the U.S. and U.K.), they treat causes rather than symptoms, and they aim specifically at the most needy section of the industry rather than the whole industry.



by R. G. MAULDON.

## Economic Efficiency – Examples from the Broiler Industry

*In the previous article Mr. A. G. Lloyd explains what is meant by "efficiency." The purpose of this article is to demonstrate three simple principles of efficiency, based on examples from the broiler industry. These principles apply quite generally to all aspects of farming, however, and if they were more fully appreciated by farmers and their advisers the efficiency and prosperity of Australian agriculture could be vastly increased.*



**G**ROWTH in the broiler industry throughout Australia is currently gaining momentum. Its pattern is similar to that of the United States 25 years ago, Britain in the last decade, and since then in many other countries. Here production is becoming sufficiently large to use the production and processing techniques explored in earlier years in other countries.

### Disparity Between American and Australian Standards

In many respects the management techniques used by Australian broiler producers are on a par with those of other countries, but when we look at our performance standards we are way behind the leaders. The average American producer is now producing each pound of broiler for less than 2½ pounds of feed. In Australia it takes, on average, around 3½ pounds of feed to produce 1 pound of broiler. In Eng-

land this feed conversion ratio (the number of pounds of feed required per pound of broiler) is around 2.7. In all three countries the feed conversion ratio is constantly being reduced. In the United States the feed conversion ratio was at the current Australian level in 1948, while back in 1933, when statistics were first collected, it was as high as 4.3. Currently in America, a 3 pound broiler is produced in around 9 weeks, whereas in Australia it takes 12 weeks.

The wide disparity between feed conversion ratios in Australia and America shows the scope for technical and economic improvement in the local industry. Expenditure on feed currently accounts for about three quarters of a broiler producers' variable costs. Thus profits largely depend upon the relationship between feed costs and total revenue, and this in turn is influenced by changes in the feed conversion ratio. Table 1 shows what the feed costs per

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live-weight pound of broiler turn out to be for various combinations of feed prices and feed conversion ratios.

Because feed costs per pound of broiler are so important to producers, there is constant pressure to keep feed costs down. If feed were 5d. per pound, the Australian producer working with a feed conversion ratio of  $3\frac{1}{2}$  would produce a 3 pound broiler with a total feed cost of  $4\frac{1}{2}$ , whereas the American producer working with a feed conversion ratio of  $2\frac{1}{2}$  would produce the same bird with a feed cost of  $3\frac{1}{2}$ . Yet while Australian producers actually do pay around 5d. per pound for a 22 per cent protein feed, the average American producer pays less than  $4\frac{1}{2}$ d. per pound. Is it any wonder, then, that the Americans can undersell us in the world market?

rather than the much higher Australian domestic price. If this were done, feed costs could possibly be reduced by as much as a fifth.

### Feed Conversion Ratios are Important

The greatest scope for improvement, however, lies in lowering the feed conversion ratio. In America since 1935 the price of broilers has been consistently falling in relation to the cost of feed, yet broiler production has expanded in that time from negligible quantities in 1935 to over 1,800 million birds in 1961. In the light of adverse price movements, this phenomenal expansion of the industry has only been possible because of the constant pressure to improve production efficiency. This improvement has been largely as

Table 1

TOTAL FEED COSTS (PENCE) PER LIVE-WEIGHT POUND OF BROILER

Price per pound of feed (pence)	Feed conversion ratio to produce a 3 pound broiler					
	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$
4	10	11	12	13	14	15
5	$12\frac{1}{2}$	$13\frac{3}{4}$	15	$16\frac{1}{4}$	$17\frac{1}{2}$	$18\frac{3}{4}$
6	15	$16\frac{1}{2}$	18	$19\frac{1}{2}$	21	$22\frac{1}{2}$
7	$17\frac{1}{2}$	$19\frac{1}{4}$	21	$22\frac{3}{4}$	$24\frac{1}{2}$	$26\frac{1}{4}$

To hold our own in this highly competitive market we must either reduce feed prices or keep on improving our feed conversion ratios. Feed prices can be kept low by closely watching the prices of their ingredients, and altering the mix as these prices vary. Large American feed companies keep a constant watch over prices, and within the limits set by palatability make frequent adjustments in their mixes to keep feed prices low. In the light of our export disadvantage with the United States, the local broiler industry (together with egg producers) has made representation to government that wheat should be made available to poultry producers at export price or at the price received by wheat farmers,

a result of the efforts of the poultry breeders. Australia has entered the broiler field only recently, and since the country is free of Newcastle Disease our quarantine regulations have prevented us from importing high quality breeding stock from America. American results do set a standard for our own breeders to follow and maintain, however.

Yet not all of the American efficiency is due to the breeding experts. American producers have learned to keep a close watch on changes in the feed conversion ratio during the production period, and to use this information, together with their knowledge of broiler prices and feed costs, in choos-

ing the right time to sell their birds. With a large number of birds and a rapid rate of turnover, this has paid handsomely.

### Feed Conversion Ratios Change with the Age of the Bird

Birds use feed less efficiently during the week when they are sold than they do during the rest of the production period. Yet it is the value of the feed conversion ratio during a particular week which determines the right time to sell, not its average value over the production period.

The distinction between the average and weekly conversion ratios is well illustrated by experiments conducted by the Western Australian Department of Agriculture. These experiments are described in the March, 1960, issue of the Western Australian Journal of Agriculture. In one of these experiments two groups of birds were fed different rations, one a control ration and the other a high quality broiler ration. The birds were weighed at 4, 8, 10, 11, 14, and 16 weeks, and body weights and progressive feed consumption per bird noted. The results of this experiment are shown in Table 2.

With these results are shown what we call the "progressive feed conversion ratio" and the "marginal feed conversion ratio." The progressive feed conversion ratio at any week is the progressive feed consumption divided by the bird's weight. The marginal feed conversion ratio, on the other hand, is the additional amount of feed consumed since the birds were previously weighed divided by the additional gain in weight. Since the marginal ratios apply to the periods between weighings, they are printed between the lines in Table 2.

There is an interesting relationship between the progressive and marginal feed conversion ratios. Since birds use feed less efficiently as they get older, the marginal feed conversion ratio gets larger as time goes on. Furthermore, at any week the marginal feed conversion ratio is larger than the progressive feed conversion ratio. Indeed, it is because the marginal feed conversion ratio is getting larger over time that the progressive feed conversion ratio also increases. Put another way, Table 2 tells us that for each additional pound of feed which a broiler eats, the gain in body weight gets progressively smaller. This is an example of what we know as the **law of diminishing returns**.

Table 2  
GROWTH EXPERIMENTS AT HERDSMAN LAKE

Age in Weeks	Average body weight per bird (pounds)		Progressive feed consumption per bird (pounds)		Progressive feed conversion ratio		Marginal feed conversion ratio	
	Control	Broiler	Control	Broiler	Control	Broiler	Control	Broiler
4	.400	.544	1.316	1.456	3.29	2.68	3.3	2.7
8	1.261	1.544	4.161	4.469	3.30	2.89	3.3	3.0
10	2.025	2.431	6.804	7.125	3.36	2.93	3.5	3.0
11	2.338	2.781	8.054	8.490	3.44	3.05	4.0	3.9
14	3.394	4.050	12.961	13.851	3.82	3.42	4.6	4.2
16	4.061	4.644	16.804	17.350	4.14	3.73	5.8	5.9

Efficiency of feed conversion will vary with the genetic characteristics of the stock and quality of feed, but the relationship between progressive and marginal feed conversion ratios is quite general.

### Maximizing Returns per Bird

What is the body weight which brings the best return **per bird**? We can only answer this question by knowing the live-weight price of broilers and the price of feed. But once we have this information it is the **marginal feed conversion ratios which tell us at what age the birds should be sold in order to get the greatest return per bird**. We may take, for example, a price of 2/6 per liveweight pound for broilers. The control ration costs 4d. per pound, while the special broiler ration is 5.72d. per pound. The broiler/feed price ratios (which are the price per pound of broiler divided by the price per pound of feed) for these rations are 7.5 and 5.2, respectively. Under these conditions it would pay to produce broilers on the control ration to beyond 16 weeks, whereas it would pay to produce broilers on the special broiler ration to between 11 and 14 weeks, probably nearer 14.

The reason for this becomes clear if, at the end of each week we ask ourselves whether we should keep our birds for a further week. For example, look at the birds on the special broiler ration. At 10 weeks we want to know whether it will pay to keep the birds for a further week. Between 10 and 11 weeks the marginal feed conversion ratio is 3.9. That is, to carry birds through from 10 weeks to 11 weeks we will require 3.9 pounds of feed for each pound of broiler gain. With broilers fetching 2/6 per pound and feed costing 5.72d. per pound (a broiler feed price ratio of 5.2), each pound of broiler gain brings us a return of 2/6 for a feed outlay of 1/10. If, at this stage, feed is the major variable cost, it will pay to keep the broilers to 11 weeks, when the same question must be asked again, namely, will it pay to keep the birds for a further week? Suppose we have carried the birds through to 14 weeks.

We now ask: does it pay to feed the birds for a further week? At 14 weeks the marginal feed conversion ratio is 5.9. With broiler and feed prices remaining at 2/6 and 5.72d. each pound of broiler gain brings us a return of 2/6 for a feed outlay of 2/10. Hence it clearly does not pay to keep the birds a further week.

This example illustrates a management principle. If the price per pound of broilers does not vary with the weight of the bird, **the profit from each bird is largest if the birds are sold when the marginal feed conversion ratio is equal to the broiler/feed price ratio**. When the marginal feed conversion ratio is less than the broiler/feed price ratio, an extra pound of broiler brings a higher return than the cost of feed. When the marginal feed conversion ratio is **more** than the broiler/feed price ratio, an extra pound of broiler brings a smaller return than the cost of feed. Producers may, of course, receive different prices for different weight birds. The logic behind the management principle still remains valid, however. Profit from each bird will increase until the return from extra production just equals the cost of the extra production.

### Maximum Profits from the Farm

Before we put our broiler management principle to work we should ask whether getting the best return from each bird will give the biggest return to the producer. In some cases it may. In Western Australia about a third of the broilers come from farms which do not specialise in broiler production. These farms produce one or perhaps two batches of broilers in a year, and their shed and yard capacity may stay idle for a large part of the year while other things are done on the farm. In these cases it is in the best interest of the farm to obtain the largest return from each batch, and the broiler enterprise will be most profitable when the net return per bird is at a maximum.

But most commercial broiler producers are not so much interested in obtaining the largest return from each batch of birds as they are in marketing

the number of batches which will bring the biggest profit. Total profit may be increased by taking a smaller profit from each batch but increasing the number of batches handled each year. This is another reason why it is important for producers to keep lowering the feed conversion ratio of their birds. Birds which convert feed efficiently into meat not only use less feed to reach a marketable weight, but also reach this weight in a shorter time, and hence more birds can be handled.

Experience has shown, however, that it does not pay to market birds very long before they reach the weight which brings the greatest profit per bird. Most of the extra profit which we can get from increasing the rate of turnover of birds will come from improving the quality of stock. We can illustrate this by again looking at the results of some experiments.

These experiments involved two groups of broilers. The first group (batch A) had a feed conversion ratio of 2.75 to produce a 3 pound broiler. The second group (batch B) were poorer quality birds. They had a feed

conversion ratio of 3.25 to produce a 3 pound broiler. The average body weight, progressive feed consumption, and marginal feed conversion ratio for these birds are set out in Table 3. As in Table 2, marginal feed conversion ratios increase week by week.

Using this information we can calculate our expected return from each bird at any week when it might be sold. We can also calculate the expected return during an average year if we were to sell all our batches at that particular age. As an example, we can use the following figures:

**Costs—**

Chickens .....	19.2d. per bird
Miscellaneous (including a 5 per cent mortality on purchased chicks) .....	5.8d. per bird
Feed .....	5.25d. per lb.

**Returns—**

Broilers less than 2½ pounds .....	2/- per lb.
Broilers from 2½ to 3½ pounds .....	2/6 per lb.
Broilers from 3½ to 4 pounds .....	2/3 per lb.

Table 3

AVERAGE BODY WEIGHT, PROGRESSIVE FEED CONSUMPTION, AND MARGINAL CONVERSION RATIOS FOR TWO GROUPS OF BROILERS

Age in Weeks	Average body weight per bird (pounds)		Progressive feed consumption per bird (pounds)		Marginal feed conversion ratio	
	A	B	A	B	A	B
8	2.1	1.5	5.3	4.5	3.0	3.2
9	2.5	1.9	6.5	5.8	3.3	3.4
10	2.9	2.4	7.8	7.5	3.7	3.6
11	3.3	2.9	9.3	9.3	4.2	4.0
12	3.7	3.3	11.0	10.9	4.8	4.4
13	4.1	3.7	12.9	12.8	5.7	4.9
14	4.4	4.0	14.7	14.3		5.7
15		4.3		16.1		

Broilers of more than  
4 pounds ..... 2/- per lb.

to 8½d. before it would be profitable to  
sell them one week earlier.

Table 4 shows profit per bird, profit per year, and the average number of batches which can be raised in a year when birds are sold at various ages. We have assumed that there is a lapse of one week between the time when an old batch is sold and a new batch is placed. Table 4 tells an interesting story. First, for the prices and costs we have selected in our example, it would pay to sell either type of bird at around 3½ pounds. At this weight a bird from batch A would return to the producer nearly 8½d. more than a bird from batch B, due to the more efficient use of feed. Over a year a producer could make 3/5 per bird unit of shed space by using birds of the type from batch A rather than batch B. This results from a saving in feed costs and a more rapid turnover of stock.

**Some Generalizations**

In this article we have demonstrated three simple principles of management which have a bearing on the broiler industry. The principles apply quite generally to all aspects of farming, however.

The first is a production principle which we know as **the law of diminishing returns**. As we add more of a variable resource (feed) to a fixed unit of production (a broiler) the return we get from each **additional** unit of the variable resource gets steadily less. This principle can be seen from the increasing marginal feed conversion ratio as broilers get older and consume more food. But the principle is quite general. Experiments indicate that as we increase the rate of application of

**Table 4**  
RETURNS PER BIRD AND PER YEAR FROM TWO GROUPS OF BROILERS

Age of birds at marketing (weeks)	Return per bird net of feed costs (pence)		Return per bird net of feed costs and other variable expenditures (pence)		Return per year net of feed costs and other variable expenditures (pence)		Numbers of batches which can be raised per year
	A	B	A	B	A	B	
8	22.6	12.4					
9	40.9	15.1	15.9		82.7		5.2
10	46.0	32.6	21.0	7.6	98.7	35.7	4.7
11	50.2	38.2	25.2	13.2	108.4	56.8	4.3
12	42.1	41.8	17.1	16.8	68.4	67.2	4.0
13	30.7	32.7	5.7	7.7	21.1	28.5	3.7
14	28.4	32.9	3.4	7.9	11.9	27.7	3.5
15		18.7					

Second, with relatively high non-feed costs per bird, it does not pay to market birds very long before they reach the weight which brings the greatest profit per bird. Selling birds from batch A at around 11 weeks brings the greatest profit from each bird and also the greatest profit in a year. Profits per bird and per year are greatest for birds from batch B when they are sold around 12 weeks. For batch A, non-feed costs per bird would have to be reduced

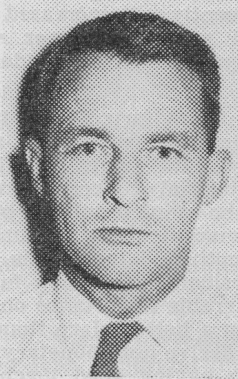
superphosphate to an acre of land, the yield increases, but at a declining rate. Similarly, the return from each additional pound of concentrate fed to a dairy cow gets progressively smaller.

The second principle assumes the first. The best economic level at which to use a resource is where the return from an extra unit of it just pays for the cost of that unit. If the law of diminishing returns is valid, these



by E. J. WARING.

## Rural Credit



*Adequate credit facilities are essential for an efficient agricultural economy. It has been a tradition in the farming community to invest very substantially from savings, though this may result in foregoing income. This article, which was presented as an address to the Western Australian Branch of the Australian Agricultural Economics Society, considers investment opportunities and credit needs of Australian agriculture.*

**T**OO MUCH discussion of rural lending is tinged with emotionalism, agricultural fundamentalism and special pleading for soft credit for farmers. The counter arguments are too heavily loaded with "hard headed" economics and the conviction that farmers would not use credit even if it were available. The correct approach surely lies between these two extremes.

Agriculture can use credit in competition with other borrowers provided farmers are made aware of the value of debt and lenders appreciate the special conditions appropriate for farmer borrowing.

### Farmers are Reluctant Borrowers

Many farmers are reluctant to borrow, yet a high proportion are good risks. On experience I would judge the most vociferous disappointed borrowers to be bad risks. But it is the other 50 to 70 or 80 per cent of the farming population that are of especial interest. Why are they so reluctant to borrow?

Considerations of equity ratios are no doubt important, especially where loans

are, by way of overdraft, theoretically repayable at call. Common insistence on rigid adherence to a schedule of regular repayments creates the need to find cash in times of cost-price squeezes and irrespective of seasonal variations in income. With low levels of debt, the family can pull in their belts and sustain themselves with the hope of better times.

One suspects, too, that fear of loss of autonomy in management may weigh heavily with some reluctant farmer borrowers. Many N.S.W. wheatgrowers avow that they were under constant bank pressure to grow more wheat in the 1930's, with deleterious effects on soil fertility. Many of the old hands still bear traumatic scars from depression experiences, and a determination never to be "in" to a bank again. Often these were as much the result of imprudent lending as over-optimistic borrowing.

Again, farmers may have become disheartened by the wailing of some economists (frequently industry lobbyists), who prove that returns to capital in all rural industries are at best 2 or

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3 per cent, yet generally see nothing irrational in buying leading company shares yielding returns which are no better.

A strong non-conformist religious background in many farming communities conditions farmers to the ideals of parsimony, patrimony, and matrimony, and an anachronistic and masochistic ambition to amass great assets in a lifetime by sheer hard work. Although farmers will probably continue to live poor and die rich, the pioneering days are surely over in most of Australia, and technological advance is making most farming big business.

### How Farmers Invest

Research studies of farm investment have been neither plentiful nor especially rewarding with information to aid our understanding of the considerations involved.

It is, apparently, an unfortunate fact that much investment occurs in spurts when favourable expectations coincide with the availability of funds from current income, surplus to customary family living expenses. Professor K. O. Campbell has suggested that fluctuating farm incomes are a positive benefit, periodically creating the incentive to such investment. Personal experience suggests that this view may be unduly coloured by the coincidence of the "wool boom" with the first opportunity to undertake delayed maintenance and introduce pent up technological advances after the financial stringencies of the 1930's and shortages of materials during the war and early post-war years.

Recent studies of pastoralists with highly variable income suggest that their consumption expenditure, in particular, follows a fairly even course regardless of income fluctuations. During what was probably the most prosperous period, albeit a short one, about 1923, in the N.S.W. North Coast dairy industry, it is true that many farm houses were then built to a standard of luxury never since maintained, and at the same time many of the best farms were subdivided and parts were sold.

In the recent wool boom in northern N.S.W. considerable sums from windfall profits were spent in buying properties for sons, perhaps with a reduction in debt load relative to market valuation. There was also a concerted move from specialised sheep-farming into mixed farming, frequently with increased sheep numbers and net returns per sheep. Wheat acreages increased considerably.

In affluent times farmers have sunk money into improvements even where they probably knew returns would not be high. Industrial concerns are not above doing the same, if one can believe the stock market gossip-columnists. They were motivated to do this by at least two considerations. Many farmers placed considerable importance on leaving their farm a better place than they found it, and derive non-monetary satisfactions from having good machinery, good fences, good stock, and a reputation for being "progressive." Second, in recent years an almost embarrassing increase of income placed many farmers in a quandary in dealing with their affairs. Commonly the first response was the purchase of machinery and other expenditure of a character attracting high concessional rebates of taxation; family partnerships and trusts for minors generally came later. The provision of some form of savings bond scheme for deposits liable to income tax only in the year of withdrawal may have been an advantage to some farmers. In the event, some of this machinery, purchased in partnership with successive federal treasurers, may now be helping to reduce the apparent return on capital invested in the rural industries.

Tables provided by F. H. Gruen in his paper "Australian Agriculture and the Cost Price Squeeze" support this common conception of farmers' behaviour in the wool boom. Real gross spending power appears to have reached a peak in 1949-50 and 1950-51 and machinery sales in those two years were some 30 per cent above the average of the year before and six years after. In N.S.W., outlay on structural improvements reached a clear peak in 1953-54, and pasture sowings in 1955-56.

The following table is based on figures derived by E. A. Saxon, of the Bureau of Agricultural Economics, Canberra, from estimates made by other Australian research workers.

increase fecundity in sheep, even at the expense of marginal gains in wool cut per head or additions to the present surplus of feed on improved pastures in the flush seasons.

#### RURAL INDEBTEDNESS IN AUSTRALIA

	1939	1950	1955	1961
Monetary Indebtedness (£m) .....	285	229	388	493
Index of Monetary Indebtedness .....	100	81	136	173
Line above deflated by index of prices paid .....	100	47	50	51
Index of volume of accumulated investments .....	100	112	143	185
Index of land (unimproved) values .....	100	—	113	—

Fairly clearly, borrowed funds have become less important in relation to total investment, and represent about 10 to 12 per cent of capital employed in agriculture.

#### Problems of Time

Time is a complicating influence in any attempt at planned investment from windfall profits. Most investment requires, before maturity, either that animal numbers increase, or that land be cleared, fenced and brought into some sort of stable pattern of crop or pasture use. Over a large area of Australia, sheep flocks do little more than maintain themselves. A recent study of 12 properties in the north of Western Australia, for example, showed that flocks had been running down continuously for a 10 year period.

Earlier studies showed that, in N.S.W. from 1946 to 1956, sheep numbers increased no more in the sub-and-super belt than in the pastoral zone. Despite myxomatosis and the lamentations of agrostologists, the number of sheep on N.S.W. wheat-sheep properties appears to have increased by less than 50 per cent since 1938, and much of this increase was in the North-West where there was no true improved pasture boom. One cannot help wondering whether our geneticists should not spend a lot more time on research to

#### Investment Opportunities

There are several areas of Australia providing clear-cut opportunities for investment. We are just completing a study of investment potential in the New England district, based on what farmers who had access to capital have already achieved. It suggests that on an area of 1.7 million acres the investment of about £20 million over 14 years would add some £100 million to export income if present wool prices continue for the next 20 years. Net farm income, at present less than £1,000 per farm, would be increased by over £20 million in the same period. Return on capital invested, including investment from savings as the scheme proceeded, could average 15 per cent. Budgets of the expected outcome of investment plans for the Eastern Brigalow belt in Queensland appear slightly more favourable, and probably similar opportunities are known in other States.

The imported component of most of this investment is not high. In the New England example the main item would be the phosphate rock for some 1.7 million tons of superphosphate, but a considerable part of the value of this commodity would be added within Australia. The multiplier effect of the added turnover involved should be good for Australia generally, even if increased output should depress wool prices.

The greatest difficulties of such schemes for the individual landholder are the associated capital inputs and the uncertainties involved during the time required for them to come to maturity. This is not to say that benefits are not felt within the community at large almost immediately. In New England, for instance, wool output from existing sheep might be expected to rise by 30 to 40 per cent within two years of commencing the planned development. The export value of this additional wool might be expected to exceed £1 million per year.

A recent brief study of the mode of developing brigalow blocks in 23-inch rainfall country on the South Western Darling Downs discloses that a grazier might be expected to spend at least 11 years developing 1,000 acres of scrub which form part of a 4 to 6 thousand acre block. During this time costs exceed extra returns in every year, and with interest, amount to a net £12 per acre in the 12th year. Thereafter the rate of return on this investment is expected to be between 12 and 16 per cent per annum.

There are two ways of considering such a proposition. Suppose the grazier borrowed all the money, and after year 12 set to work to repay the loan as quickly as possible. It would be about 20 years from the commencement of operations before the investment contributed anything towards better living standards—and much of the land is leased on a 30 odd year basis! Again, suppose the money can be found, but is not immediately repaid. The expected rate of return compares quite favourably with that for shareholders' funds in all public companies over the last four years (7 to 8½ per cent, after company tax). What is wrong with such farms carrying a permanent "debt" load? As wool, beef and fat lamb producers they are probably a better proposition than the dairy industry, which now owes the trading banks alone £10 on every female beast over the age of 10 months.

### Special Credit Needs

There are some persons who quite reasonably suggest that we should not seek

to increase agricultural output in the near future. Granted this, the picture is still somewhat the same.

We can increase agricultural efficiency in two ways, of which farm amalgamation and redeployment of some agricultural resources is undoubtedly one. But even such schemes as these are likely to require that some people go more deeply into debt than at present and will require a considerable period to repay borrowings.

Since there exist few institutions to permit agriculture to raise capital in the manner of secondary industry, existing lending institutions could be required to adapt to agriculture's needs in the interests of national efficiency. It may be interesting to see whether an agricultural rentier group arises in the future as a result of the general trend to private companies in the rural industries.

At present farmers are willing and able to borrow part of the money for farm purchase on long term overdraft. Despite the decline of storekeeper credit, many seem to have no great difficulty in financing day to day operations. But medium term credit is difficult to come by and development plans are likely to be halted, at the whim of the Treasurer and the Commonwealth Banking Corporation, before they reach the stage of making their full potential return. This has led at times to a farcical situation where farmers had pastures but could not buy the sheep, water facilities, or fences to permit their full utilisation.

The activities of the Development Bank and the new arrangements for development loans by the trading banks will do something to meet this situation, but the total capital involved is still quite small. (The Development Bank has about £11 million outstanding of a total of £493 million of rural indebtedness to major lenders excluding £90 million from the Rural Credits Department of the Commonwealth Trading Bank.)

Thus for a long time past, and even now to a substantial degree, the question of whether farmers **would** borrow has been somewhat academic, and

clouded by our dependence on monetary contraction to dampen excess economic activity. A farmer might be better off paying an extra one per cent or more on development loans rather than, say, selling needed livestock to reduce his overdraft. It is not suggested that the behaviour of bankers has been lily-white during our various credit squeezes, but it is only fair to say that they have had problems in providing the stability and continued support in lending required by the rural industries.

Another not entirely satisfactory result of bank policy, over the last six years in particular, has been the growing importance of the "fringe" lenders, especially by the pastoral companies. As recently as 1954 pastoral companies accounted for £55 million of total rural debt of £339 million. The corresponding figure for major trading banks was £192 million.

In 1961 these figures had risen to £106 million, £493 million and £225 million respectively. Pastoral company loans have almost doubled while loans by trading banks increased by about one-seventh. A substantial amount of the money involved in pastoral company loans derives ultimately from the trading banks, and accordingly the trading banks have not necessarily increased the "spread" of their lendings between sectors of the economy as a result of these changes. Furthermore, handling charges are increased by the pastoral companies acting as intermediaries. These increases are obviously passed on, at least in part, to borrowers.

Other problems appear to be inherent in this borrowing at second remove. Most loans by pastoral companies are short term and secured by liens on produce. They thus assume precedence over mortgages held by the banks as security for longer term advances. They also provide the means whereby pastoral companies can dictate to farm managers where, when, and how, they will sell their produce, and some farmers claim to have been disadvantaged as a result of such dictation.

### **Administered and One-Stop Credit**

There is some reason for the belief that the increased importance of pas-

toral companies in rural lending, a role which has probably been forced on them, is increasing the cost of farm borrowing, and tending to skim off a disproportionate amount of the cream of rural lending business.

It seems a short and eminently reasonable step to suggest a return to "one-stop" borrowing from banks which provide additional service in farm lending. Such service is already provided but banks might well consider a more concerted involvement in this field.

Such a move would permit them discreetly to seek out the desirable borrower and to assist the weaker needs to the advantage of both parties. More general employment of specialised staff by banks, with appropriate service charges, and active use of the farm management club adviser, in line with some New Zealand practice, appear to be ways in which this move can be facilitated.

When capital is scarce, and when, as in agriculture, such capital is required under conditions to which our present lending organisations are not attuned, it seems reasonable to expect that we should do something to provide the special services needed. But, if that service entails extra costs in farm lending, rural borrowers are the group who should be first considered when deciding who shall pay.

### **Research and Rural Lending**

The policy and marketing research implications of the suggestions made above clearly call for additional research in those areas, but significant assistance can come from workers in the field of farm management. I believe that workers in this field can make a contribution by pointing up profitable areas for investment and stripping cost analyses of some of the mumbo-jumbo that clouds choice between enterprises, often as a result of our accountants' preoccupation with taxation requirements in farm business records.

In methodological studies there is a need for more attention to techniques for determining the best pathways for adjustment or expansion of farm businesses, rather than simply determining

the best pattern or combination of farm enterprises. We have useful techniques for this purpose in parametric budgeting and programming procedures and I feel that both the Universities of Western Australia and New England are doing good work in this field.

Currently we are interested in dynamic programming with the aim of circumventing the tremendous build up of debt before some investment programmes reach their ultimate "steady state," and suggesting desirable patterns of lending and investment to permit sequential advance to the most advantageous organisation in successive years. In this work we are making slow but pleasing progress.

### Conclusions

(1) Credit is an essential input in an efficient agricultural economy. There is probably scope for increased use of credit both for output increasing development and for redeployment of agricultural resources, particularly through combination of labour, and the large machine units of today's technology, with land at present subdivided

to suit the technology or political ideology of yesterday.

(2) It is a tradition among the farming community to invest very substantially from savings. In many cases the rate of capital accumulation under these conditions will be inefficiently slow and the optimum expansion or adjustment path will consequently be denied to farmers.

(3) Most farmers could benefit from "a second opinion" on investment, and the emergence of a special profession of investment advisers should benefit lenders and borrowers alike.

(4) Considerations of time, asset fixity, and irreversibility of expansion paths demand special consideration in rural lending. The likely variation in cost of rural loans is probably not as important as the assurance of continued access to funds until investments mature.

(5) The most suitable source of such loans is probably the banking system, lending from perhaps specially created and certainly larger development funds, with greater services and possibly increased charges on borrowings.



by F. H. GRUEN AND A. M. COUTTS.

## An Analysis of Changes in the U.S. Wool Consumption



*In this article the results of an analysis of the changes in the U.S. wool consumption are summarised. The analysis is based mainly on data from the U.S. publication "Textile Organon" and a series of consumer surveys undertaken by the U.S. Department of Agriculture. The period studied*



*is 1949 to 1958. The authors also present some possible research and promotion strategies based on the findings of their analysis.*

**W**OOL consumption trends in the United States have given rise to considerable concern in Australia. During the last ten years U.S. per capita wool consumption has declined from around 4 lbs. to approximately 3 lbs. Most of this decline has been in the apparel wool field in which Australia is particularly interested. While there has been some reduction in total fibre consumption (per capita) the share of apparel wool has fallen from 7.3 per cent of the total in 1950 to 5.2 per cent in 1960.

Changes in wool consumption may be divided into two categories:

- (a) those which are the result of a declining proportion of wool being used in any one field. This implies a growing proportion of some other fibre—or in other

words the substitution of rival fibres for wool. This is called the substitution effect.

- (b) changes resulting from shifts in the popularity of different garments, e.g., trends towards more casual wear or lightweight clothing. This is called the "fashion" effect.

Both factors have had some adverse effect on U.S. wool consumption, but our estimates suggest that by far the greater share—probably around 75 per cent of the relative loss in wool usage (excluding carpets)—is the result of the substitution of other fibres (especially synthetics, but also cotton) for wool. Substitution has occurred in many end uses. Major losses—here defined as amounting to 10 million lb weight or more—have occurred in the following products:

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Major areas where wool has been replaced by other fibres	Estimate of amount of Displacement: 1949-1959
Sweaters (men's, women's and children's) .....	35.7 million lbs.
Car upholstery (and sidewalling, etc.) .....	33.6 million lbs.
Blankets .....	23.6 million lbs.
Men's Slacks .....	22.9 million lbs.
Woven Carpets .....	22.7 million lbs.
Draperies .....	12.0 million lbs.

The main areas where wool has gained over this period (1949-1959) have been: tufted carpets (26.3 million lbs.) and street and formal wear dresses (probably mainly fully-fashioned knitwear—12.5 million lbs.).

Further details on the items listed above are set out in the appendix.

To ascertain possible reasons for these losses, reference was made to a series of eleven consumer surveys undertaken by the United States Department of Agriculture. In most cases it is possible to obtain plausible explanations for consumer's decisions to substitute synthetic or cotton fabrics for wool. The main disadvantages of wool reported by U.S. consumers surveyed were: (i) warmth, (ii) difficulty of laundering, and (iii) irritability of wool.

To illustrate these points we take one of the 34 end uses studied originally—men's separate slacks and trousers. Wool's share of this market fell from 37 per cent in 1949 to 16 per cent in 1959. As a result of the trend towards lighter, more casual clothing, total fibre consumption in separate slacks more than doubled over this period. While wool and rayon consumption remained relatively static, cotton consumption increased sevenfold and synthetics—starting from a much smaller base—more than fiftyfold. According to a survey undertaken in 1956 men preferred cotton to wool in summer slacks because they were cool and washable. Dacron slacks were also favoured for these reasons and additionally, because they were more wrinkle resistant. Although wool had an advantage over all other fibres in holding shape, keeping a press, being dressier and able to be worn the whole year, proportionately more dissatisfac-

tion was expressed with wool in summer slacks than with any other fibre. Consumers' reasons for dissatisfaction were, in order of importance: "too warm," "sticky, scratchy, stings" and "not washable, shrinks."

Included in this item are boys' school pants. Here mothers expressed a strong preference for cotton during a 1958 survey. Good laundering characteristics, durability and appearance were the main reasons.

#### Some Possible Inferences for Research and Promotion Expenditure

Trends in wool consumption in the United States are important, partly because the U.S. is a large market for wool—in spite of the decline in per capita consumption it remains the largest single national market. But of greater importance is that trends in the United States may be repeated elsewhere. Basically there are two reasons why such a development might be expected. (a) U.S. consumers have had longer experience with some of the newer synthetic fibres which have taken part of wool's share of the market. But consumers in most western European countries (and in Australia) are increasingly being offered the same fibre alternatives which the U.S. consumer has enjoyed during the last seven or eight years. While end-use estimates are not available for other countries, it appears that wool is losing ground in Australia (and possibly elsewhere) in many of the same end uses where it has lost ground in the United States. Obvious examples are women's sweaters, car upholstery and men's slacks. (b) U.S. consumers enjoy higher per

capita incomes than those in most other countries. Wool consumption trends in other countries may parallel those of the United States as consumers in other countries become equally affluent and as able to afford washing machines, heated motor cars and airconditioning. Although Japanese wool consumption has grown rapidly in recent years, about two-thirds of world wool consumption still takes place in the higher income areas of North America, Western Europe and Oceania.

This is not to deny that there are special features in the United States which are likely to affect wool consumption. The tariff on imported apparel-type wool which, at present prices, adds between 15 and 25 per cent to the landed price of such wool is an obvious example. However, price is only one of the factors influencing inter-fibre competition. It seems likely that the trend away from wool in the United States has been largely the result of non-price factors. Whilst inter-fibre competition in other high-income areas may differ somewhat from the U.S. pattern, broad trends of fibre consumption in Western Europe, for instance, could easily parallel U.S. developments—unless wool producers engage in a determined, positive and imaginative counter strategy.

The design of a counter strategy for the wool industry calls for a profound knowledge of textile technology and fashion trends which we cannot claim to possess. Our comments here are based on the conclusions which our analysis, plus a cursory reading of the technical literature, suggests to us; they may need to be modified in the light of what is technically (and financially) possible in the laboratory, the textile mill, in market research and in advertising.

While wool has been replaced by other fibres in a large number of end uses, it is evident that this displacement has not been uniform. Our data suggest that it has been particularly marked in certain fields and that it is usually possible to find perfectly plausible reasons for such displacement. This conclusion would seem to have important implications for a promotion policy on behalf of wool. It is generally realised now

that wool promotion in the past has been largely ineffective because it has concentrated on promoting wool as a fibre rather than particular woollen garments or other articles made from wool. But the corollary which is sometimes drawn from this, namely, that what is required is simply much more advertising of woollen products is unlikely—at least by itself—to counter existing trends. While the promotion of synthetics has probably raised their sales, permanent gains seem to have been achieved mainly in those areas where synthetics have been able to offer consumers certain qualities and choices not previously available to them. Where performance has not warranted wool's displacement of synthetics—e.g., in regular weight suits where the manufacturers of Dacron engaged in an aggressive advertising campaign—little worthwhile benefit has accrued to the sponsors of such campaigns. The unsuccessful attempt to establish a market for Ardil—a U.K. synthetic substitute for wool—is another example that aggressive advertising cannot guarantee success in the competition between fibres. As a result promotion of synthetics in recent years has concentrated on informing consumers of the useful, new qualities which their products have to offer. Such promotion—at least by implication—usually draws attention to certain grounds for dissatisfaction or to disadvantages of products made from traditional fibres. It is doubtful how effectively this type of activity can be countered merely by stressing the virtues of traditional fibres.

The elements for a more effective strategy for wool would seem to us then to consist of:

(a) Obtaining much more adequate information on the end uses for wool in major consuming countries than is at present available (except in the U.S.). Unless careful statistical estimates are made of those fields where wool is actually being used and how its consumption compares with rival fibres, large sums can be wasted on promotion. Such information is necessary not only to ascertain where wool is threatened (or gaining) but also to obtain data on the success of any counter-measures



which may be undertaken. In other words it is probably necessary to undertake end use studies—of the type currently conducted in the U.S. by synthetics and cotton interests—in other major wool consuming regions.

Shortages of funds and trained staff will probably limit the volume of work along these lines which can be undertaken. Priorities should be given to products where (a) inter-fibre competition is particularly marked, (b) special promotional activities are undertaken. Priority should also be given to countries where changes in wool consumption (upwards or downwards) are likely to be greatest.

It is significant that even manufacturers of synthetics—who presumably have much more adequate notions of the end uses of their products simply from examining their order books—have found it worth while to spend substantial sums on statistical estimation of this kind. Again those responsible for the effective promotion of cotton in the United States have found it essential to engage in this type of study.

(b) Follow up these end use studies by properly planned and designed surveys of consumers and retail outlets. The function of such surveys would be to ascertain consumers' views of the strengths and weaknesses of wool and of competing fibres in the individual end uses. Information on what consumers consider to be the good qualities of wool (and the weaknesses of competing fibres) is required partly for designing more effective advertising campaigns. However, it was suggested above that the mere stressing of such good qualities of wool—relative to its rivals—is unlikely to be sufficient by itself. This brings us to the most important element of a counter strategy for wool:

(c) **Launch and promote products which meet the consumers' criticism of wool and the good points of synthetics.** The qualities needed in such "new" products will obviously vary in the different end uses. However, the following would seem to be the major weaknesses of wool mentioned by U.S. consumers:

(i) **Warmth**

Warmth is, of course, one of the major attractions of woollen fabrics. It is noticeable that in those end uses where warmth is obviously of major importance—such as men's regular-weight suits and overcoats—wool has usually held its own or even gained slightly at the expense of other fibres. However, the advent of heated motor cars, air-conditioning, etc., has reduced the necessity for warm clothing for many affluent consumers. Hence the need to provide consumers with the alternative of more lightweight materials made from wool. We understand that the main limitations on making lightweight articles from wool is fibre strength. In the spinning process a thick sliver of wool is gradually drawn and twisted until it reaches the desired diameter. The finer the thread the longer the process of drawing and the greater the number of breakages. Breakages will probably be more serious and costly for fibres such as wool which are relatively weaker.

There seem to be two possibilities of overcoming this problem. The first—and the better from a long run point of view—is research to provide an economic method of raising fibre strength (whilst not affecting other "good" properties such as handle, etc.). But this is obviously a long-term solution which is unlikely to produce much practical benefit in the near future. In the meantime **launching and promoting certain types of blends may be the second-best alternative.**

Our attitude to the promotion of blends seems to be based largely on emotional considerations rather than careful consideration of the issues involved. A proper perspective on these issues is perhaps best obtained by examining why synthetics manufacturers are willing to carry out costing research on the properties of blends, and then proceed to launch and promote certain types of "mixed" fabrics. For them too, blends constitute a second-best alternative. But synthetic producers realise that—given the present state of their technical knowledge—they can most easily overcome some of the disadvantages of their fibres,

(e.g., lack of warmth, handle) by the use of a minimum quantity of competing natural fibres such as wool. In the absence of such blends consumers would prefer garments made from rival fibres—e.g., wool. Hence the promotion of blends enables synthetic manufacturers to increase the demand for their product.

The wool industry is confronted with a similar situation. Wool at present has some disadvantages such as lack of strength. According to some authorities the addition of small percentages of synthetic fibre to wool exerts a marked effect on the strength of the yarn. Supplanting 20 per cent of the wool with synthetic leads to a substantial increase in the fineness of the yarn which can be produced. The tensile strength of a fabric made from an 80/20 wool-nylon mixture may be increased by 50 per cent over an all-wool fabric and its durability by 100 per cent or more. If this information is correct, it would seem a better policy for wool interests to launch and promote 80/20 blends which overcome some of the problems which beset pure wool products than allow 50/50 blends—or even pure synthetic fabrics—to capture a large share of the market by default. Whilst both wool and synthetics interests therefore have an incentive to promote blends they will ordinarily promote blends in very different proportions. While such a policy may not be easy to apply in practice (or to defend in front of an audience of woolgrowers!) the criterion as to whether a blend should or should not be promoted is very simple: will it or will it not increase the overall demand for wool in this particular field of end use?

There may be occasions when wool and synthetics producers have a common interest in the promotion of a blend. For instance, in the U.S. men's socks market it seems possible that synthetic/wool blends have taken away some share of the market from cotton. In this type of situation—which is probably rather rare—wool producers may gain from making common cause with synthetics.

(ii) **Ease of washing.**

The easy care characteristics of cotton and synthetic fibres have been a

major factor affecting wool consumption in a number of important end uses such as sweaters, slacks, men's socks, blankets, etc. Important progress has been made by research workers in overcoming this disadvantage of wool. However, it still remains necessary to convince the consuming public that duly treated woollen garments can be washed with impunity. To build up a desirable "image" of wool every effort should be made to ensure that—in the type of garments where easy care characteristics are of importance—all woollen fabrics are treated by one of the available processes to make them washable, shrinkproof, etc. Synthetics manufacturers achieve some control over the quality of the products made from their fibres by denying any promotion assistance to textile mills whose products do not conform to their rigid quality standards. A similar policy would seem advisable for wool. In other words wool interests should encourage the adoption of new wash and wear treatments in certain fields by generous assistance with promotion campaigns for manufacturers who adopt these treatments, whilst refusing any assistance to those who market non-washable sweaters, socks, etc.

(iii) **Irritability.**

A large proportion of U.S. consumers surveyed mentioned irritability as an important drawback of fabrics made from wool and contrasted such fabrics unfavourably with the soft feel of fabrics made from rival fibres or sometimes wool mixtures. This is another area where further research work is likely to supply the most satisfactory long-run solution. In the meantime other short-term expedients may be useful. It is understood that irritability is largely the result of the inclusion of coarser wools (or re-used wool) in fabrics. The launching and promotion of special fabrics made of fine wool, which are guaranteed to be soft and have a comfortable feel would probably have a beneficial effect on wool's competitive position in such end uses as men's separate coats, sports shirts, lightweight suits, men's and women's sweaters, knit dresses, skirts, and blankets.

(d) Our suggestions so far have a defensive ring about them. In other words, we have largely concentrated on measures designed to counter the threat of synthetics. Such an approach flows naturally from an examination of the past and the displacement of wool by other fibres which has taken place. But there is no reason why the same technique cannot be used to find new uses for wool—or to encourage the more rapid growth of wool consumption in those end uses where it has been gaining a gradually larger share of the market. Tufted carpets and fully fashioned knitwear are perhaps the most important examples here. In both cases wool's gains have tended to be relatively slow whilst manufacturers gradually discovered for themselves the benefits of wool in these comparatively new fields.

The elements of an effective counter-strategy for wool which have been listed above are not meant to be exhaustive. For instance, no comment was made on the need for technical liaison—i.e., ensuring that research techniques are fully applied commercially and in case they are not, ascertaining the possible "snags." These omissions are

justified here because our findings have little bearing on such facets of a research-cum-promotion policy for wool.

Finally, we must justify another omission—the absence of any reference to methods of countering the decline in wool consumption which has been the result of our "fashion" effect. This is because little is definitely known regarding the reasons for the changes described by our "fashion" effect and whether these can be influenced in any way. A cursory glance at the data shows that the "fashion" effect has had adverse consequences for wool consumption in such important end uses as men's and women's suits and coats, woven carpets and car upholstery. It seems to us that it would probably be more difficult to counter such trends than those resulting from the substitution of other fibres for wool. However, no direct evidence on this point is available. Manufacturers of synthetic fibres have probably taken more advantage of whatever possibilities exist in the field of channelling consumer spending into those areas where their fibres show themselves to greatest advantage. But we have no new information to offer on this subject.



APPENDIX

CHANGE IN WOOL CONSUMPTION IN SELECTED END USES (U.S.A.)

ITEM	II 1949 "Wool" use	III Change in "Wool" use 1949-1959	Change due to			Other fibre change due to substitution		PRESUMED REASONS FOR:				
			IV MILLION LB.	V MILLION LB.	VI MILLION LB.	Cotton	Rayon	Synth.	Dissatisfaction with Wool			
									VII			VIII
Column No. I									Satisfaction with other Fibres			
1. Sweaters (men's, women's and children's)	36.1	-6.9	+28.8	-35.7	+2.5	-1.8	+35.1		<b>Dis-satisfaction with Wool</b>	<b>VII</b>	<b>VIII</b>	<b>IX</b>
2. Car Upholstery (and side walling, etc.)	38.5	-36.8	-3.2	-33.6	+16.3	+9.5	+7.8		<b>Dissatisfaction with Wool</b>	<b>VII</b>	<b>VIII</b>	<b>IX</b>
3. Blankets	24.4	-16.4	+7.2	-23.6	-22.1	+30.6	+15.1		<b>Dissatisfaction with Wool</b>	<b>VII</b>	<b>VIII</b>	<b>IX</b>
4. Men's Slacks	23.5	-0.4	+22.5	-22.9	+38.4	-23.9	+14.4		<b>Dissatisfaction with Wool</b>	<b>VII</b>	<b>VIII</b>	<b>IX</b>

**Dis-satisfaction with Wool**

**VII**

**In Women's Sweaters:** Irritating, shrinks, not washable, too warm, bulky, not mothproof.

**Upholstery, Sidewalls, Head Lining:** Styling not sufficiently creative, designs and textures outdated; better dyeing and wearing qualities needed; not soil and moisture resistant. Not cool.

**Irritating, doesn't hold shape, shrinks, stretches, not washable, wool fuzz comes off, gets linty, not mothproof.**

**Men's Slacks:** Too warm, irritating, not washable, shrinks.

**Boys' School Pants:** Not available.

**Satisfaction with other Fibres**

**VIII**

**Orlon, Nylon:** Washes easily, quickly, soft, holds shape, doesn't sag or stretch, not irritating.

**Cotton, Rayon, Nylon (and Vinyl):** Better appearance, soil resistant, permanent colours, durable, easy to handle in tailoring, moisture resistant.

**Upholstery only:** Cool, smooth, appealing texture.

**Sidewalls only:** Integration with body cloth.

**Cotton:** Washes easily, less expensive, non irritating, not too warm, soft, feels good.

**Wool-Rayon:** Washes, dries well, holds shape, non irritating, less expensive, not too warm.

**Cotton:** Cool, washable.

**Dacron:** Cool, washable, wrinkle resistant, lightweight.

**Cotton:** Washable, durable, good appearance.

**IX**

**Warm, heavy, has body, durable, stays new looking, has attractive, rich, smart appearance.**

**Head Lining Only:** Good appearance.

**Warm, without being heavy, durable, looks nice, good appearance.**

**Holds shape, keeps press longer, dressier, can be worn all year.**

**Not available.**

APPENDIX—Continued

ITEM	Change in "Wool" use 1949	Change due to			Other fibre change due to substitution			PRESUMED REASONS FOR:		
		"Wool" use 1949-1959	Fashion' substitution	Substitution	Cotton	Rayon	Synth.	Dissatisfaction with Wool	Satisfaction with other Fibres	Preferring Wool
								Living Room Floor Coverings:	Nylon:	Cotton:
5. Woven Carpets	158.2	-36.5	-13.8	-22.7	+1.4	+8.4	+12.9	Wears well, nap does not wear off, colour fast, satisfactory past or present experience, gives warmth, looks dressy, rich.	Easy to clean, mothproof, washable, inexpensive, soil resistant.	Wears well, nap does not wear off, colour fast, satisfactory past or present experience, gives warmth, looks dressy, rich.
6. Tufted Carpets	—	+48.5	+22.2	+26.3	-88.7	+45.6	+16.8	Master Bedroom Floor Coverings: Not soil resistant, doesn't clean easily, extra nap fuzz comes off, not mothproof.	Washable, inexpensive, mothproof, variety of pretty colours.	Wears well, nap doesn't wear off, gives warmth, pleasant to walk on, soft, looks dressy, rich.
7. Draperies	7.7	-7.2	+4.8	-12.0	-35.0	+20.6	+26.4	Living Room Draperies: Not available.	Washes easily, can be laundered at home, durable.	Not available.
8. Unit priced dresses (street and formal wear)	8.5	+15.3	+2.8	+12.5	+28.7	-55.5	+14.3	Between Seasons' Dresses: Not available.	Daeron, Nylon: Washes easily, quickly, durable, looks nice, soil resistant. Rayon: Durable, hangs well.	Warm, heavy, lightweight, holds shape, feels soft, dressy, feminine.

NOTES: Changes in Wool Use (Col. III) has been divided into "Fashion" (Col. IV) and Substitution (Col. V) effects. (For meaning see text p. 1 and 2). Substitution is the loss or gain due to changes in the proportions of other fibres used. The combined losses and gains through substitution by Cotton Rayon and Synthetics listed in Col. VI, therefore balance the losses or gains by Wool (Col. V).

to wear woolen apparel in the winter months

by SIR SAMUEL WADHAM.

## Recollections and Reflections on Government Commissions



*The Commission of Enquiry is a well established device in Australia. In this article Professor Sir Samuel Wadham reflects on the background and impact of some commissions with which he has been associated.*

**F**REQUENTLY the appointment of a Commission of Enquiry by a Government is regarded as a matter for comment. Cynics suggest that such a body is a convenient means of stalling off criticism and gaining time during which some matter of public interest can be kept quiet, either until that interest has waned and therefore is no longer politically dangerous, or until the true facts of the matter have been sorted out and the situation can be adjusted legislatively.

During the last 36 years I have had the opportunity of watching a good many of these bodies and have taken part in some of them. Undoubtedly some have been so constituted that the ultimate findings were also inevitable before the body even met. These were set up to gain time or to white-wash some projected political manoeuvre. Many others have been set up with the definite intention to unearth and disclose facts before action is taken by parliament. In this regard it is well to remember that political controversy

and political tactics do not necessarily have the elucidation of facts as their chief objective!

The Bruce-Page Ministry of 1923-29 found itself in a difficult position. The post-war boom of 1919-21 was short-lived, but it had stimulated economic activity in many directions. Large schemes of land settlement for returned servicemen and for migrants were afoot in every State. There was a considerable increase of Government expenditures on irrigation schemes, extensions to railways, highway construction, the development of Yallourn, and so on. Industrial activity was also increasing. But the finance for all these movements mostly came from overseas borrowings, the interest on which had to be met by increases in the value of exported commodities which were almost entirely by the products of the primary industries. It became more difficult to negotiate further loans.

At the same time some leaders of public opinion were becoming increasingly aware of the part which science

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might play in bringing greater economies into production. On the financial side, others were aware that the loans which the various States were negotiating in London for various developmental projects were likely to lead to inflationary spending, but the projects themselves were of doubtful value from the economic point of view.

By 1924 the plight of many of the returned servicemen who had been settled on the land under schemes devised by States was becoming obvious and the Commonwealth Government was approached on their behalf. The Government appointed Mr. Justice Pyke, of New South Wales, to investigate the matter. He took evidence at many centres and recommended that the size of holdings should be increased so as to give a greater output per man. Money was allotted for this purpose and the States appointed committees to recommend "home maintenance areas" for each type of farming. These committees had to work on the basis of expected prices for farm products, and the depression subsequently reduced the actual market price of these commodities to much lower levels. The basis of the recommendations proved to be incorrect, and the plight of the men had to be dealt with by moratoria and, subsequently, debt adjustment.

The British Government in 1924 passed an Empire Settlement Act under which a provision of £34,000,000 was arranged in 1924. Loans from this sum could be allocated to any Dominion or Colony for developmental purposes. But allocations were conditional on the statement of specific schemes on which the money would be spent and these schemes were to be assessed on an economic basis and must assist in migration.

The Commonwealth Government thereupon set up two bodies which were to have a profound influence on the future of Australian development. The Council of Scientific and Industrial Research was incorporated in 1926. In a somewhat modified form it is still with us; its activities are well known and need not be further analysed here. The second body was the Development and Migration Commission of three

members, of which the outstanding figure was its chairman, Mr. (later Sir) Herbert Gepp, who came to it with considerable experience in numerous fields and with an enormous capacity for hard work.

### The Development and Migration Commission

The Development and Migration Commission was given the task of examining and reporting on Australian development, and in particular of assessing the various schemes put up by the States for money under the Act of the British Parliament. Its enquiries were exhaustive. It investigated the dried fruits industry, the canned fruits industry, Doradillo grape production, potatoes, Australian fisheries, projects for planting softwoods, and many schemes for land settlement. It also set up a Dairy Committee to study the problems of dairying. This body intimated that it would investigate production, processing and marketing. However it quarrelled so violently over the first of its topics that it never dealt with the other two. The Development and Migration Commission had a large staff and was fairly expensive. It saved large capital investments by preventing the opening of new land for settlement in agricultural areas which were totally unsuitable. Perhaps the most notorious of these proposals was the Nowingi Scheme in the Victorian Mallee. Under it a large tract of new country was to be opened in a district with a highly variable eleven inch annual rainfall and poor soil. It would have required a new railway line and a very expensive scheme for stock and domestic water supplies.

If preventing unwise expenditure was its main economic result, its psychological effect was greater. Its existence meant the end of development which the Sydney "Bulletin" had referred to as the **policy of splash-it-up-go-bung & Co.** In future, State Departments of Lands would be called upon to show how settlers could be expected to make a living on blocks of the sizes which were designed. This was an altogether new idea in those days, normal as it may seem to modern eyes.

The Development and Migration Commission was expensive to the Treasury; it was anathema to the States, most of whose schemes it had strangled; and, as economy was the order of the day, it was closed down in 1930. The value of economic assessment in farming affairs had been appreciated and the C.S.I.R.O. was requested to carry on this side of its work — a request which that body promptly ignored as its chief executive officer did not think much of economics, and did not wish to entangle his organisation in a subject so controversial and so political in character.

### **The Royal Commission on Wheat, Flour and Bread Industries**

The great depression of the 1930's forced governments to pay some attention to economic principles. Many special conferences were held, and many committees set up. Agriculturally the most potent were, firstly the Wool Committee, which broadly surveyed the facts of various stages of the industry and recommended some reduction of the Land Tax, and secondly the Royal Commission on the wheat, flour and bread industries. The latter body was the result of considerable pressure and unrest in the wheat growing districts in each State. Numerous vested interests were opposed to any action, especially on the marketing side. On the side-lines were those who accused the millers of making all the profits, and the bakers for maintaining the price of bread at about 2½d. per lb. when wheat was only fetching a fifth of that sum. The Federal Government decided to have an investigation of all three industries. But it had to be careful in phrasing the terms of reference because the industries were carried on in the States, and the powers of the Commonwealth in granting assistance were limited by the Constitution.

It was necessary to set up the body as a Royal Commission so that its powers to compel evidence on oath could be defined. The Commissioners were widely selected: Sir Herbert Gepp and the writer from Victoria,

Mr. Walter Harper whose life has been intimately connected with farmers' movements and with wheat in Western Australia, Mr. E. P. M. Sheedy, an accountant of Sydney, and Mr. Tom Cheadle, a wool man from Adelaide.

The situation was somewhat critical. Farmers wanted financial aid, not an enquiry; they knew conditions were desperate. The millers and bakers wanted to be left alone. Many city men who had farming interests, claimed they could grow wheat profitably at 2/6d. a bushel. They usually operated through share farmers and had scarcely considered what that price meant to these operators. In their eyes it was all a waste of time.

As the wheat industry was the chief sufferer and the loudest complainant, it was essential to start with the wheat farmers, especially as the Government pressed for an early statement on this section of the enquiry. The essential point was to get the farmers sympathetic to the enquiry, and so farmers' organisations were asked to help and they promised support. An eight page questionnaire was drafted in terms far removed from official jargon; it used the idea that the Commission needed the help of farmers to establish the facts, and asked for them courteously.

The question of the sample was fundamental. A random sample would have been almost impossible. So credit-affording institutions, such as banks and farmers' organisations, were asked to encourage reliable wheat growers who kept accounts to provide information. The distribution of all informants was compared with the distribution of wheat growers in each statistical district as regards acreage under crop and yield per acre. The sample farms were found to be somewhat larger and to have had somewhat higher yields than the general run in each of the districts. How far this meant it was unsound is debatable. Data were collected on a three year basis.

Evidence was taken at many centres and each informant was questioned under oath. Meanwhile, attempts were made to estimate the gross indebtedness of the industry, but this was found



to be very difficult. The generalship of the chairman was largely responsible for the success of the enquiry, particularly among the flour millers. Only in one case was a subpoena taken out, and when its waiting recipient was told that he would have to appear before the Commission with all his account books over five years, and then be questioned line by line and cross-examined — even if it took months — he capitulated and “came quietly.”

The success of the flour and bread enquiry was largely due to the skill of accountants lent to the Commission by the Postmaster General. As one large miller said afterwards, “our accountants always told us you could not cost a flour mill, so we let your boys in with some amusement. However they devised an effective system and taught our chaps; we have used it ever since.”

The main problems of such an enquiry were twofold. Firstly, to get competent assistants and someone capable of writing a readable report and of devising diagrams to illustrate its points. Secondly, to get enough time to do the work properly. Politicians always fail to understand what a long time it takes to establish facts. They are being pressed for action and they are accustomed to making rapid decisions, often based on guesstimates. My most depressing experience occurred when I was deputed by the chairman to present the Wheat Report to members of the Cabinet. About five came to the meeting, and I found to my dismay that not one of them had any idea of a survey based on a statistical sample, or of what the diagrams meant, or that the figures showed that over half the industry was broke at current prices.

In our reports we had stressed the importance of looking at the industry from the angle of world supply and demand — a novel idea to many people in those days. We showed that  $3\frac{1}{2}$ d. per bushel would enable half the wheat men to carry on if no account was taken of any return on their own invested capital. When we had moved on to flour and bread, two consecutive years of drought and dust storms in

North America had reduced world stocks and the Australian price went to over 4/-. Knowalls suggested our work was therefore unnecessary; but in the final report (1936) we pointed out that it was almost certain that the stocks would again accumulate and the price collapse accordingly — which it did in 1938.

During the depression the subject of world malnutrition was ventilated, especially when Lord Bruce became chairman of the League of Nations. The study of the nutritional level of nations became a popular subject and ultimately Australia had to do something about it. Somewhat unwillingly the Commonwealth set up a Committee under the Department of Health. A lot of data were collected in the Eastern States and vast computations were made of the range of consumption by families of each type of foodstuff. On the other side foods were analysed into their nutritional components, and thus a magnificent scatter of figures was compiled. By this time some other fashion had developed and the public had forgotten about national nutrition. The Director General of Health was anxious to wind up the committee's work, but no attempt had been made to correlate the nutrition of families with income or family size or any other factor. This was too stultifying so we had a frightful row. Ultimately the Minister, Sir Earl Page, came in on my side and it became clear that malnutrition was widespread in the larger families. It is a mistake to resign, but sometimes useful to threaten to do so!

As a result of these various investigations the Federal Government decided that it was time to set up an organisation to train agricultural economists and study the economies of rural affairs. A conference was called to discuss objectives and make proposals. The University of Melbourne was approached, but the £3,000 per annum offered was so inadequate that the offer was rejected.

### **The Rural Reconstruction Commission**

As World War II entered its most serious stage many new organisations

were set up. Among these was the Ministry of Post-War Reconstruction which had wide responsibilities in connection with farming industries. The Prime Minister, Mr. Chifley, decided to set up a Rural Reconstruction Commission to investigate the whole position of farming, and of the conditions of rural life. This was not a Royal Commission; it had no particular enemies but there was considerable opposition from some of the States—notable from Victoria, which considered the matter was one for the States and should not be investigated by a Federal body. The chairman, the Hon. F. J. S. Wise, was persona grata with the government of Western Australia and so investigations began there and then moved to Tasmania and Queensland, where it was welcomed. South Australia and New South Wales became co-operative and, as by that time it had become clear that the Commission had no political or anti-State intentions, Victoria had no objection to it visiting appropriate districts.

The scope of the Commission's enquiries was extremely wide and the collation of material submitted involved a heavy task. We were asked to give first priority to the problems of land settlement for returned servicemen, but before this could be seen in its proper perspective, a general review of the pre-war agricultural situation was necessary; this therefore was the subject of the first report. The others appeared gradually. The most difficult was probably the final report on economic prospects, the quantitative background of which was furnished by Commissioner the late J. F. Murphy, who was also head of the Department of Commerce and Agriculture. The forecasts for the various industries had to be carefully assessed. The cautionary attitude which was adopted has been justified by subsequent developments.

It is difficult to decide how far the appointment of such a Commission was justified. One of its achievements was the check it placed on the unbounded optimism towards land settlement which was prevalent in some quarters in 1946. In those States where its re-

commendations were followed, the result was relatively favourable, although as years went by, fewer of the recommended safeguards were observed. The Commission was subjected to considerable pressure to recommend leasehold tenure, but it refused to adopt this policy.

Of the other recommendations many have been adopted and others used as a basis for State action, although naturally this is never acknowledged. This was the last to be prepared, and as the other commissioners had returned to normal peace time occupations and the policy recommended was not to the liking of a certain authority, it was never released. The work was appallingly strenuous, and the Commission never had a staff of the size and quality necessary for its work to be done expeditiously — but it was extremely interesting!

### **The Usefulness of the Commission of Enquiry**

It is difficult to say how far such bodies are justified. I have never been associated with an enquiry which was of the white-washing type. Of those with which I have come into contact I think it can be claimed that they served useful purposes. They gathered together and assessed information which would otherwise have been difficult to acquire. In so doing they provided a background against which politicians could perform their tasks. If they took unwise actions the other side of the House would know where the weakness lay.

Everybody who makes enquiries of this type must realize that if its reports are to be the basis of political action they must be so framed as to give the future legislators a reasonable chance of success. Criticism is often necessary in reports, but it can be so framed as to give as little offence as possible, and must always be accompanied by suggestions as to ways and means of providing remedies. Mere criticism, lacking in imaginative suggestions, is the easiest of occupations. It is unreasonable to expect any minister of any parliament deliberately to commit

