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PRICE ARRANGEMENTS FOR DAIRY PRODUCTS

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Since 1958 there have been three attempts to unravel the problems of the Australian dairy industry: a Committee of Enquiry was appointed by the Commonwealth Government in July, 1959 ; Professors R. I. Downing and P. H. Karmel of the Universities of Melbourne and Adelaide respectively were requested by this Committee to make an economic examination of the industry ; and, finally, the Faculty of Economics, University of Sydney, was asked by the Australian Dairy Farmers' Federation to investigate the problems of the industry. Arising from its initial work the Sydney University Faculty of Economics has now published a book on *The Australian Dairy Industry,* edited by N. T. Drane and H. R. Edwards.[1] The central theme of this book is that price arrangement, especially for butter and cheese, underlie the problems of the industry.

"Dairy Industry Domestic Market Participation Scheme"

Under present circumstances Australian butter and cheese producers receive an equalized price which merges local and export prices. Drane and Edwards argue that this pricing system should be replaced with a two-price scheme which would enable the individual producer to see more clearly the income effects of producing for the home market on the one hand and the export market on the other. They propose a Dairy Industry Domestic Market Participation Scheme which would involve setting a home price for an established quota of butter and cheese production and an export price for the remainder.

The great advantage of this scheme would be that it would overcome the poor supply response associated with equalization. The authors show quite clearly that equalization cannot logically be expected to contribute to the solution of the persistent low-income problem faced by a section of the industry ; they demonstrate, in fact, that it tends to be self-defeating:

> "If the Australian market price is increased and hence the equalized return, the incomes of all farmers are indeed raised—in the short period. But it is not possible permanently to raise the incomes of the less advantaged farmers by this means. For the effect of the increased unit return is to retain in the industry producers on the point of giving up; to stimulate even further the expansion plans of low-cost farmers; and to induce new farms to undertake production where previously it was (just) not profitable to do so. Capacity and output thus tend to expand, but the additional output is necessarily sold on the lower-priced export market and this reduces the equalized return . . .
>
> "The ultimate outcome tends to be: (1) an enlargement of the 'marginal' or 'problem' sector in the industry, at an unchanged level of income; (2) an increased burden on the Australian consumer as measured by the (enlarged) gap between the Australian-market and export prices; (3) a greater volume of production for uneconomic sale on the export market; with (4) the only beneficiaries being (i) low-cost Australian producers whose expanded production has realized higher unit returns than it otherwise would, and (ii) overseas consumers of the Australian product."[2]

[1] *The Australian Dairy Industry, An Economic Study*, edited by N. T. Drane and H. R. Edwards (Melbourne: F. W. Cheshire, 1961), pp. xvi, 321, 84s. 0d.

[2] *Op. cit.,* p. 199.

If dairymen individually knew that they would be paid one price for their particular contribution to the Australian market and the (usually lower) export price for the remainder it would be much easier for them to decide whether or not to produce in excess of their home market quota. As a consequence domestic and export supplies would be more responsive to their respective prices than under the present system where the "price" as seen by the individual producer is the equalization return plus a subsidy payment per unit of total commercial production. Under a two-price scheme marginal revenue to the individual supplier would relate to export value rather than the equalized return and would therefore induce only the more efficient producers to expand production.

Drane and Edwards admit the convenience of equalization as a means of providing protection to the industry but argue that this has not been its objective; the objective, they claim, has been to maintain the incomes of the less favoured dairy farmers. The five year stabilization plan introduced in 1952-53 was acknowledged by the authors to be an attempt to provide a measure of protection since this provided that the Australian price should be adjusted with the objective of returning producers the "cost of efficient production" for a volume of production equal to Australian consumption plus 20 per cent. It is pointed out, however, that this objective is now in abeyance, neither the subsidy or domestic price being increased despite rising costs; whereas figures prepared by the Dairy Industry Investigation Committee reveal rising costs of production, the net return to butter producers has shown a gradual decline since 1953-54.

Having established that the official cost of production has ceased to be used as a basis for fixing butter prices, Drane and Edwards proceed to discuss the cost of production concept itself. In view of the fact that the Dairy Industry Investigation Committee's figures show the mean unit cost of production to exceed the return to the farmer for the last eight years the reliability of the cost figures is questioned. The authors suggest a more realistic conception of cost of production would be:

> "In conditions of relatively free entry, it is that cost price which is sufficient to maintain capacity and output in the industry at the prevailing level and (just) to encourage expansion—with some firms among the less efficient meanwhile contracting or leaving the industry, and other more efficient, and new, firms expanding their production."[3]

On this basis they suggest farmers' returns would provide a closer guide to the costs of production in recent years—"44d. to 45d. per pound would be pretty close to the 'true' cost of production including normal profits in the present state of the industry."[4]

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[3] *Op. cit.*, p. 217.

[4] *Op. cit.*, p. 218. The Dairy Industry Committee of Enquiry was equally critical of attempts to establish the cost of production and refused to believe that the industry as a whole has been operating with increasing losses since 1953-54. The Committee felt that figures derived from cost surveys "are reliable guides to movement of cost over a period; to differences in cost in different districts; to differences in costs of individual producers; to changes in value of certain components of total cost; to cost variations resulting from changes in the volume of production; and to many other matters of interest" but "could not accept the final result as the cost of production of all farms in Australia, of all farms in the sample, of any group of farms or of any farm at all . . . The Committee believes that the continued use of alleged 'costs of production' as a means of giving stability to the industry is likely to do more harm than good." *Report of the Dairy Industry Committee of Enquiry on the Australian Dairy Industry* (Canberra: Commonwealth Government Printer, August, 1960), p. 89.

Prospects for Increased Productivity

Drane and Edwards recognize the great variations that exist in the relative efficiency of dairy production throughout Australia but seem to be excessively pessimistic about the prospects for further increases in productivity. They consider they have assembled sufficient evidence to show that the past performance in respect of increases in output per man has been worse in dairying than in other rural industries. Further, they disagree with a view expressed by Mr. Colin Clark that "a more progressive outlook on the part of the Australian dairy farmer, with re-seeding and fertilizing on a wide scale, would entirely revolutionize the outlook."[5] Commenting on this view the authors say: "Even if such a revolution in physical productivity could be brought about, which we doubt, it is our later contention that this would do little to improve, and may even worsen, the position of the dairy farmer. The depressing effect of the increased output on prices would tend to lower the value productivities, which may outweigh any increase in physical productivity."[6] This conclusion may be valid for dairy farms operating under difficult conditions due to topography, climate, farm size, layout, etc., but it seems to underestimate the comparative advantage enjoyed by dairymen in better areas. When one considers the known possibilities for efficient production in Australia's most favoured dairying areas one would be inclined to agree with Mr. Colin Clark's view rather than accept Drane and Edwards' "faint suggestion that even the most efficient, lowest cost, dairy areas do not really enjoy a comparative advantage on world markets".[7]

It must be admitted that the Australian dairy industry does not rank very highly in measures of physical productivity but it is necessary to look a little deeper into the organization of the industry when considering how it would adapt itself to changes in prices. Increases in productivity in dairying may tend to be "lumpy" due to such considerations as herd size in relation to labour force, accommodation for employees, size of dairy buildings and capacity of milking machines and equipment. When dairy farmers feel they have reached an upper limit in cattle numbers they frequently turn to other activities likely to increase the total value of output. They may aim, for example, to increase the average yield per cow, develop a herd of registered cattle in order to improve the return received from the sale of surplus livestock, introduce new subsidiary enterprises or expand existing ones. Consideration of these factors, in addition to productivity indicators relating specifically to dairying, may show that productivity on farms predominantly devoted to dairying does not vary greatly from that on other farms. A further factor is that farmers in some of the most efficient dairying areas are not engaged entirely in dairying but endeavour to maintain a combination of enterprises which will make best use of available resources. In the Berriquin and Denimein Irrigation Districts in New South Wales, for example, associated products include fat lambs, wool, beef and cereals. Similar opportunities exist in other parts of the Southern States and, in such areas, one would expect some expansion of dairy production even if it were known that the additional production would receive the export price, as proposed in Drane and Edwards' two-price scheme. For the same reasons it is felt that Karmel and Downing are

[5] Quoted by Drane and Edwards, *op. cit.*, p. 106.

[6] *Loc. cit.*

[7] *Ibid.*, p. 125.

correct in believing there would still be an export surplus if their more far-reaching proposals for reduced protection of the dairy industry were adopted [8]

Extent of Dairy Industry Protection

The extent of protection afforded to the dairy industry by the subsidy, equalization and restrictions on margarine production are clearly dissected by Drane and Edwards. They show that during the five years 1954-55 to 1958-59 the subsidy and equalization arrangements increased the incomes of dairy farmers for a given volume of output by an average of approximately 54 per cent, the greater part of this protection (31 per cent) being due to equalization. The authors calculated that if the subsidy were withdrawn entirely at the present time and the industry sought to maintain the same overall returns an increase in the ex-factory price of butter of at least the order of 22.5 per cent would be necessary (i.e., with perfectly inelastic Australian demand). This would involve an increase in the retail price from 4s. 9d. (June, 1959) to 5s. 10d.

The protection afforded by restrictions on margarine production, on the other hand, is small. On the assumption that total margarine consumption would rise from the present level of 8.8 lb. per head to 11 lb. per head per annum if the quotas on production were abolished, the authors estimate this would mean additional margarine production of approximately 13,900 tons would be required in 1965. If this caused a displacement of 10,000 tons of butter from the home to the export market the measure of assistance to the dairy industry of margarine restrictions would be £2.1 million.

Alternative Activities for Dairy Farmers

One of the effects of the two-price scheme proposed by Drane and Edwards would obviously be an acceleration of the movement out of the industry by farmers located on land not well suited to dairying. In fact one of their objectives was to provide a pricing system which would induce more efficient use of national resources and reduce poverty and inefficiency among butterfat producers. As a background to this aspect of their contribution the authors have included an excellent chapter on "The Incomes of Dairy Farmers", in which the following important conclusions are reached:

> "(*a*) In terms of conventionally measured rates of return on resources, butterfat production is on average one of the less efficient activities in the economy.
>
> (*b*) In terms of conventionally measured income per head, butterfat producers are on average among the less prosperous sections of the community.

[8] Karmel and Downing proposed that, over a transition period of five to ten years, the present subsidy on butter and cheese be abolished, tariffs and imports controls on these products be removed and restrictions on the quantity and quality of margarine production be removed. See, R. I. Downing and P. H. Karmel, "Protection of the Australian Dairying Industry", *The Economic Record*, Vol. 37, No. 78 (August, 1960), pp. 351-365.

(*c*) Within the butterfat industry, there is great inequality in incomes and efficiency: the problem of dairying is confined to a thick stratum of marginal and sub-marginal producers.

(*d*) Low incomes and low productivity are associated with small production and inadequate capital (land, improvements, livestock and equipment), and, less frequently, with poor quality of farm management.

(*e*) To reduce poverty and inefficiency among butterfat producers, it is necesary above all to increase the mobility of resources into and out of the industry, and to assist in the amalgamation of small farms."[9]

Although they have devoted some attention to the question of providing alternate uses for resources released from dairying, and have criticized Karmel and Downing for giving insufficient attention to this problem, Drane and Edwards confess they have no specific suggestions to offer. Instead they propose the establishment of a Regional Economic Development Service (a Government body) to carry out regional surveys and study movements in prices and costs so that recommendations on land use may be made. This service would be intended to reinforce the tendency of the Dairy Industry Domestic Market Participation Scheme to foster the emergence of a normal supply reaction in the industry. As such it would undoubtedly be useful but it would seem unnecessary to create a new agency to undertake activities which are already normal functions of the extension services of the State Departments of Agriculture and Milk Boards. Certainly it is only in recent years that advice on adjustment problems (including advice to move to other occupations) has been regarded as a legitimate part of the work of agricultural advisory officers and, for that reason, some in-service training may be warranted to equip extension workers for this broader task and make them more aware of its importance.

Differential Product Prices

A source of controversy within the Australian dairy industry is the fact that prices received outside wholemilk zones are much lower than prices received by wholemilk producers. This problem is discussed by Drane and Edwards, with particular reference to the situation in New South Wales. The authors recognize the likelihood of cost differences between the Milk Zone and butterfat areas but doubt whether this is solely responsible for the higher returns in the former; it is suggested restriction on entry and inelastic demand make it possible to adjust milk prices without taking account of price trends for other dairy products.

In addition to the advantage of having access to the higher-priced wholemilk market, Milk Zone dairymen are able to dispose of their surplus milk on an assured market—the butterfat market. In earlier years some winter supplies were drawn from outside the Zone but since 1954-55 the New South Wales Milk Board has experienced no difficulty in meeting its requirements from within the Milk Zone. In the process of increasing winter levels of production, however, the spring/summer peaks have not been reduced so that the producer outside the Zone suffers in two ways: (*a*) he no longer sells part of his winter output at the wholemilk price and (*b*)

[9] Drane and Edwards, *op. cit.*, p. 174.

expanded Milk Zone supplies diverted to production of butter for export (the price of which is usually below the home price) depress the average returns of butter producers.

To counteract the depressing effect of surplus Milk Zone production on butter prices, Drane and Edwards suggest that butterfat producers be paid the wholemilk price for a proportion of their production. This would not imply any physical movement of milk from butterfat areas to the Milk Zone but would serve to compensate butterfat producers for the advantage held by Milk Zone dairymen through unrestricted participation in the butter market, and would thus provide more equitable returns for dairymen generally. For this scheme to be practicable co-ordinated action by all States would, of course, be necessary. An alternative method of compensation, also mentioned by the authors, would be to make the sweet cream market available to non-Milk Zone producers. This would eliminate the uneconomic practice of transporting milk to Sydney for conversion to cream.

On economic grounds it is understandable that butterfat producers feel they are at a disadvantage compared with wholemilk producers. However, it must be appreciated that the present system of marketing milk and dairy products has been evolved over many years, and consequently changes will have to be implemented gradually to avoid hardship. The concept of a restricted Milk Zone dates from the First Producers and Consumers' Conference in 1926.[10] The first Milk Board apparently recognized that Sydney supplies of milk were drawn from areas close to Sydney and subsequent developments have continued that tradition. In the Board's early years it was not necessary to go further afield for supplies and when this later became necessary all arrangements for supplementary supplies were regarded as temporary measures pending increased production within the Zone. Any changes in the area from which wholemilk for the metropolitan area is drawn therefore need to take account of the fact that current Milk Zone producers have organized their farms on the assumption that there will be a continuation of the long-established Milk Zone.

Drane and Edwards and their colleagues have clearly made a thorough and objective study of the economic problems of the Australian dairy industry and have done much to provide a theoretical basis for future policy decisions. Their contribution will undoubtedly be of great value for many years to all who are concerned in any way with the organization or welfare of the industry. Students of economics will be equally grateful to the authors for their excellent demonstration of the application of economic theory to particular problems. It is rather surprising that the main proposals were treated so lightly by the Dairy Industry Committee of Enquiry. Although recognizing that "there is much to be said for such a scheme which leaves an incentive for the low cost producer to produce maximum quantities but which does not depress overall prices to the disadvantage of the high cost producer", the Committee dismissed the proposal for a two-price scheme on the ground that it would involve the introduction of controls and "where there are controls there will be law-breakers and the Committee sees no need to add to the number of either.[10] In view

[10] See Alan G. Lloyd, "The Marketing of Milk in New South Wales", this *Review*, Vol. 18, No. 3 (September, 1950), pp. 205-237.

[11] *Report of the Dairy Industry Committee of Enquiry*, *op. cit.*, para. 957, p. 91.

of the apparent success of analgous quota systems in wholemilk zones this seems an unnecessarily hasty judgment. Possibly the Committee members were influenced by the authors' view that a desirable effect of the scheme would be a contraction in exports, a prospect which did not appeal to the Committee. As argued above, however, this fear, if it were present, was probably unwarranted as the authors are perhaps too pessimistic about production possibilities in the more efficient sectors of the industry. It is possible also that the views of the authors would have received more serious consideration by the Committee had they been able to document their evidence as comprehensively as their book.