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Co-operative Pig Marketing

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1 Introduction

A co-operative is a voluntary association of individuals who, by collective action, aim to carry through some common objective of economic enterprise. Co-operatives may vary from consumer societies (such as banks or life insurance societies) to those established for the collective ownership of productive assets (such as farm equipment). We are only concerned in this article however, with marketing co-operatives; that is, a voluntary association of producers formed for the purpose of marketing their produce through collective action. The degree, or extent of collective action can vary according to the policy of the members; from a simple pooling of resources designed to seek out more reliable market intelligence; to the processing and even retailing of members' produce under a co-operative brand name.

Australian farmers have often formed co-operative societies — usually in response to their dissatisfaction with the way the existing market operates. Hardaker *et al* [19, p. 152], amongst others,[1] observe that, "group action in the marketing and distribution of agricultural commodities is often taken by farmers who are dissatisfied with the performance of private merchants or processors, or who wish to introduce services not obtainable from existing marketing institutions". While many co-operatives fail,[2] sufficient survive (or survive for sufficiently long) to induce farmers to continue to look to the co-operative device as a means of overcoming what they see as market failure.

South Australian (S.A.) pig producers operating on traditional family farms have, in recent years, become increasingly concerned about the way their pigs are marketed and fear for their future place in the marketing of pigmeat. To this end, producer groups approached the authors to make an independent evaluation of the feasibility of establishing a co-operative to market pigmeats. This article looks at the possible arguments in favour of co-operative pigmeat marketing in S.A. A fuller consideration of the other aspects concerned with any decision to form a marketing co-operative is considered elsewhere [23].

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[1] Essentially the same point is made by Smith [28, p. 3], George [16, p. 18] and the Green Paper [20, para. 6.47] on agriculture policy. Cameron [9, p. 4], the former general manager of the large, but now defunct North Western Pig Co-operative Marketing Group, claimed dissatisfaction with existing pig marketing as the reason for establishing that co-operative.

[2] Piggott's study [27] indicates that although there are many new registrations of co-operatives each year in N.S.W., the total population of co-operatives remains fairly constant. Cameron [10, p. 191] when complaining about the failure of the North West group warns, "How often do you see farmers' organisations form and then just fade away?"

A brief description of the S.A. pigmeat industry is given in Section 2 as a background to this article. The emphasis is on the most relevant aspects of pig *marketing*. This leads us to list, in summary form, possible aims of a marketing co-operative which is intended to confer benefits on prospective farmer-members. While the list is by no means exhaustive, it does include the major economic reasons suggested during the course of the S.A. study [23]. Each possible aim is then examined in Sections 3 to 7. The final section draws together the various arguments and emphasises the common theme that appears to emerge. While each market and each industry have peculiarities of their own, we believe that some general lessons emerge from this study which have relevance to the marketing of most agricultural products in Australia.

2 Pigmeat Marketing in S.A.

Although the production of pigs in S.A. is still predominantly in the hands of family farms engaged in mixed farming (mainly grain), an increasing proportion of output is coming from intensive producers specialising in the production of pigs.[3] Farmers market their pigs either through the auction of live animals, by selling direct to processors on a weight and grade basis, to buyers who purchase stock as it stands in the shed or paddocks, or by auction of pig carcasses. By far the most common method in S.A. is sale by live auction. For example, in 1976-77, the major saleyard, Gepps Cross, handled 53 per cent of the State kill of pigs.[4] While live auctions allow the market to be cleared at a price where demand equals supply, unexpected shifts in demand and supply make it difficult to predict price, and add to the uncertainty of pig production and marketing. Furthermore, because of the influence of demand and supply fluctuations on price, a producer has very little indication of how much of his price was due to *quality* factors peculiar to the stock he offered for sale.

Direct sales from producer to processor on a weight and grade basis may give the producer greater price certainty and better information on the market's quality preferences.[5] However, individual producers who sell in this manner may receive a lower than average price for equivalent quality because the processor is able to act as a monopsonist and/or because the processor requires a premium for committing himself to a forward price. Direct paddock sales, where no forward price is involved, may still result in a discounted price to the producer because of the monopsonistic position of the buyer and also because of the costs incurred by the buyer in visiting each property where purchases are made.

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[3] Prior to 1968 most pig herds were associated with dairy herds, since that period (and specifically from the wheat quotas) the emphasis has been on wheat-sheep farms [7 and 24]. Also, during the 1970's there has been a gradual, but steady increase in the proportion of breeding sows in large herds with a concomitant reduction in the proportion in small herds [23, Table 1.6].

[4] Throughout the 1970's the figure has remained at around 50 per cent [23, Table 1.7].

[5] See Freebairn [15] for a detailed discussion of analogous producer benefits from carcass classification.

As stated earlier, the most popular method for marketing pigs in S.A. is via public auction. The B.A.E. producer survey [5] and our own producer survey [23] suggest that direct sales to processors are second most popular amongst producers. These two methods together account for 80 to 90 per cent of all pigs sold in South Australia. The remainder ranges from odd sales arranged by telephone by independent farmers, to the supplies of a piggery which is vertically integrated with a processor through common ownership.

On the face of it, the S.A. pigmeat processing industry appears to be dominated by the activities of the three largest firms.[6] All of these firms do their own slaughtering and processing, and market bacon, ham and smallgoods under their own brand name. No figures are available on the proportion of the market absorbed by these firms, and while collusive behaviour has not been established, some idea of their potential influence on the market can be gained from a consideration of their size and the size of other firms in the industry.

The S.A. pig wholesaling/processing sector comprises about 20 establishments classified as bacon, ham and smallgoods producers and about the same number classified as meat wholesalers. Most of these firms get their slaughtering done at the public abattoir and have a limited investment in processing and transport equipment. There is rapid turnover in the industry suggesting low barriers to entry and therefore low capital requirements. By comparison, the smallest of the "big three" had assets valued at $3.5 million in 1976 with land, buildings and plant comprising $2 million of this. This size of investment is clearly non-typical and separates the "big three" from the numerous small firms in the industry. However, in addition to easy entry by new firms, the market is much more competitive than is at first apparent because interstate buyers — especially those from Victoria — are very active in the S.A. market. The 1969-70 report of the B.A.E. [5] estimated that 22 per cent of pigs produced in S.A. were sold to interstate buyers and reports from saleyards near the Victorian-S.A. border suggests that this proportion has increased in recent years.

In the light of the circumstances existing in the S.A. pigmeat market we can ask what possible aims could a marketing co-operative have which could be of benefit to potential members? During the course of the study, we identified the following claims about the establishment of a co-operative:

(a) A marketing co-operative could provide better marketing information to producers over that presently available, especially in relation to quality requirements.

(b) The co-operative could reduce existing marketing costs by avoiding some selling costs, particularly that of public auction sales, and it may also reduce the "cost" of price instability.

(c) The co-operative may be able to negotiate market outlets for its members which improves their long term prospect of pig farming in the face of diminishing competition between buyers.

[6] The three most important pigmeat processing firms are George Chapman Pty. Ltd., W. Jacobs Pty. Ltd., and Metro Meat Ltd. Each, especially Metro Meat, processes other kinds of meat in addition to pigmeat.

(d) A marketing co-operative could attempt to return a greater share of the consumer's dollar to pig producers, especially via "middle-man" marketing activities.

(e) By bulk purchased inputs (such as feed) a co-operative could lower costs for producers.

In the sections that follow, we examine each of these possible roles for a marketing co-operative in the light of conditions existing in the S.A. pig market.

3 Market Information

As was indicated in Section 2, the public auction of live pigs is the most popular method of marketing pigs in S.A., yet it provides virtually no feedback of information to producers about the quality of pigmeat produced on their farms. While the clearing house nature of the auction system is advantageous in matching demand with supply, the uncertainty of price makes forward planning by operators extremely difficult.[7]

Much of the cause of sudden shifts in demand at public auction in S.A. is due to the influence of interstate buyers, especially buyers from Victoria. In the case of Gepps Cross, Victorian buyers in 1976-77 purchased 25 per cent of the pigs offered, but the week to week purchase could vary by as much as 20 per cent.[8] Given the cost of transporting pigs (either live or in carcass form) from Adelaide to Melbourne, Victorian buyers obviously use Adelaide pigs to "top up" their weekly requirements.

Because of the dominant influence of short term demand and supply factors on price, farmers who sell by auction have neither the knowledge nor the incentive to try to match the consumer's preference for quality of pigmeat with the type of pig produced.[9] The long term effect on buyers of live pigs is to discount their price to take account of the uncertainty of quality of meat under the skin. An alternative which appears to have increasing appeal to processors supplying a discerning market is to initiate steps to secure pigmeat from known and established producers on the basis of the weight and grade of meat supplied. All processors in S.A. now get a proportion of their pigmeat requirements from producers who sell direct to the processor.[10]

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[7] In 1976-77, weekly price variations at Gepps Cross of between 20 and 30 per cent for pigs of similar quality were not uncommon. Observed price variations within the one day were as much as 15 per cent.

[8] The South Australian Meat Corporation (SAMCOR) provided these (unpublished) statistics. Between the 11.1.77 and 18.1.77 Victorian purchases varied from 35 per cent of all sales to 14 per cent of sales.

[9] To the extent that buyers are influenced by quality, the only inducement for a farmer selling by live auction is to improve the outward *appearance* of the live pig, regardless of the quality of meat under the skin.

[10] Apart from contract purchases of the type explained by Neilson [25] and used by J. C. Huttons in the "Q Scheme", the three major pigmeat processors in S.A. have vertically integrated with intensive piggeries which supply part of their need for pigs.

Pig producers elsewhere have either overcome or minimised these problems through the formation of marketing co-operatives. Pig marketing co-operatives have been developed to such an extent in Denmark that farmers are told in advance the weekly price by grade of meat; and after slaughter they receive a full report on each carcass including an objective assessment of the percentage of lean meat.[11] Some Australian co-operatives, though less developed than their Danish counterparts, have been effective in providing market intelligence to their members. For example, most States contain pigmeat marketing co-operatives which report back to members on the buyer's assessment of the quality of meat in the pigs supplied.[12] By negotiating direct sales to processors, co-operatives are able to advise members (usually by telephone) of the expected price by quality of pig.

While it is true that co-operatives are able to provide the kind of marketing information outlined above, it does not necessarily follow that co-operatives are the *only* information source available to farmers. Other marketing conditions or arrangements which can reduce the degree of uncertainty faced by pig farmers are:

(a) Adoption of the National Pig Carcass Measurement and Information Service (N.P.C.M.I.S.) throughout the pig industry in S.A., with its uniform standard for meat quality, will reduce producer uncertainty about the quality requirements of buyers. While it may still be argued that private processors could fraudulently misrepresent quality and weight when paying producers, the increased automation of classification reduces the chance considerably.[13] By comparison with a producer co-operative, N.P.C.M.I.S. is perhaps more likely to attract Government support. To the extent that it does so, it may have a greater chance of success at changing the whole system of marketing and the cost to producers of implementation may be lower.

(b) Pig producers in S.A. who want an objective appraisal of the quality of pigmeat can already get this if they have their pigs slaughtered by the statutory body, the South Australian Meat Corporation (SAMCOR) at Gepps Cross. SAMCOR has installed objective measuring equipment as a service to the industry and while producers who use the adjoining auction saleyards will remain uncertain about the price they are likely to receive, they can at least receive information on the quality of their meat.

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[11] A handy summary of the Danish industry is contained in Knudson [22]. The lean meat percentage is measured with the KSA meter.

[12] For example, in N.S.W. there is the Lachlan Valley Pig Marketing Group, in Victoria the Primeat Co-operative Society Ltd., in Queensland the Darling Downs Co-operative and in Tasmania the Tasmanian Pig Co-operative.

[13] Where each private processor applies his own "rule of thumb" grading system the assessment of quality could be biased against the producer. This, together with the visual reading and recording of carcass weight, has led some co-operatives to station a member of the co-operative staff on the killing floor when the co-operative pigs are being weighed and graded. Modern computer-linked measuring equipment reduces the chance of ad hoc human meddling.

(c) The kind of marketing information required could also be obtained by group action which falls short of the formal establishment of a co-operative society. Loose farmer groups already exist in S.A. for the purpose of gathering and disseminating information on meat marketing conditions (including pigs).[14] Information on price by grade of meat is gathered by telephone by group secretaries and, in return, members of the group advise how many pigs they wish to sell on the day in question. That is, sales are on a direct sale basis to the processor offering the best price.

4 Marketing Costs

The more direct and the less complex the channels of distribution between producer and customer, the lower the marketing costs. In looking to a co-operative to reduce marketing costs producers see it as a service for streamlining the flow of pigs from producer to buyer. More particularly, this would be between farm gate and factory. Given the propensity of the small producer of pigs to use the auction system to sell his pigs, the greatest potential savings are in avoiding the costs of live auctions. These costs are both physical — in the extra handling involved — and in the "cost" of price uncertainty.

Live auctions result in greater loss of weight and stock bruising than direct sales because of the extra handling involved. The extra handling itself is not costless and is reflected in higher yarding fees and a higher rate of commission than that charged on direct sales.[15] We estimate that, for the S.A. pig market, the extra cost of commissions and yarding of the auction system as against direct sales during 1977 was in the region of 4 per cent of the final sale price of the pig.[16]

No reliable figures are available on quality losses in pigs due to extra handling in the auction. Weight losses and bruising are known to occur, however, and studies by Cozens [13, p. 24] and Mullin [24, p. 10] put these losses for lambs at 4 per cent and 12½ per cent respectively by weight. Furthermore, this understates the loss in value as potential price premiums for quality are also foregone when carcasses are downgraded because of bruising.

A major reason why producers with small pig herds choose the auction system in preference to direct sales is that their infrequent and often irregular sales are not encouraged by processors. To the processor they are unreliable suppliers of meat of uncertain quality and price is discounted

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[14] Several of these groups have joined together to fund the services of a part-time secretary resident in the metropolitan area of Adelaide and trade under the name South Australian Producer Marketers.

[15] The direct sales commission is around two per cent, while that for stock sold by auction is five per cent.

[16] To the extent that auction sales also involve extra transport costs (for example to a meat processing works which does not adjoin the saleyards and where the saleyards are not in a direct line between farm gate and factory) — then the cost estimates [23, Table 4.1] are conservative.

accordingly. By pooling their supplies through a co-operative, while the quality of meat might still vary, the quantity supplied each week would ensure a steady flow of pigs for the processor's killing and packing chain. Apart from other advantages — such as a feedback of information on quality preferences described in Section 3 above — co-operative members could achieve the marketing cost savings of direct sales outlined above.

If producers were prepared to pool and co-ordinate their selling in the way necessary to secure a direct sales outlet, other cost savings would be possible. For example, transport could be co-ordinated to ensure full loads. Not only would this spread the cost over a larger number of pigs, but full loading reduces the chance of stock bruising. The Primeat Co-operative in Victoria and the Bannockburn Co-operative at Inverell in N.S.W. are two examples of pig marketing co-operatives which have co-ordinated transport and sell directly to processors.[17]

It should be noted that the lower the proportion of total sales going through the auction, the less important is the latter's role in fixing prices. If direct sales become the predominant form of marketing, as they have in Queensland, then negotiated prices may become the market leaders with the auction price tending to follow rather than lead.

Price instability may be regarded as a further cost of auction selling because fluctuating prices create uncertainty for managers trying to make investment decisions in a rational manner. Theoretically at least, a farmer selling at auction in the face of fluctuating prices will, in the long run, receive a price somewhere about the mean. However, many farmers are adverse to risk and hence will make allocative decisions as if they were receiving a sub-average price with certainty. Since there is no corresponding uncertainty from society's point of view because of aggregation, this allocation of resources will be economically inefficient.

Furthermore, a farmer who decides to sell at auction commits himself to a supply curve which is completely inelastic over a range of prices which reflect the loss of withdrawing pigs from sales if the price falls below certain levels. That is, once he *sends* his pig to market, withdrawal is not costless. On the other hand, a direct sale can be negotiated *before* the pigs leave the farm and if a farmer is dissatisfied with the price offered he can either enquire elsewhere, or, if pigweights are tolerable, withhold his pigs from sale in the hope of higher prices later.

Marketing co-operatives not only arrange direct sales for producers, but give advance notice of price. In some instances, price can be negotiated for a period in advance, such as a week or even a month.[18]

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[17] To the extent that many farmers with only small pig herds co-ordinate sales with other activities in the city, the marginal cost of transporting a trailer load of pigs themselves is very small.

[18] In Denmark the price is decided on Thursday for sales in the coming week. Similar pricing agreements have been arranged by the Victorian and Tasmanian co-operatives, while one processor in Melbourne, Plumrose (Australia) Ltd., attempts to offer a monthly price quotation for the prime quality meat required in the canned ham trade.

Again it must be emphasised however, that the kind of savings on marketing costs outlined above can be achieved without the need to form a co-operative. It is not necessary for an individual farmer to join a co-operative in order to sell directly to processors. In spite of any discounting on price, it may still pay the small herd owner to sell directly to a processor rather than sell at auction. Suppliers with larger herds, and therefore a regular supply of marketable pigs, become known to processors and the amount of discounting for uncertainty is reduced as a consequence. Small groups of farmers can achieve the same regular flow of pigs (although the quality may vary) as intensive producers by group selling, but without forming a co-operative. Such groups could also cut transport costs by ensuring full utilisation of the available transport.

Other marketing systems are also available for reducing uncertainty and lowering the costs associated with auction selling. One possibility is the formation of forward contract markets for objectively classified grades of meat, but a uniform classification system is a necessary pre-condition for such a market. While a co-operative may be useful in stimulating changes towards such a system or in administering the system, it is not of itself a necessary pre-condition for a forward market. Where producers are too small to interest the processor in such contracts, the same effect can be achieved by groups of small producers acting collectively, but not necessarily formally establishing a co-operative.

Marketing costs (including price uncertainty) will also be reduced if S.A. adopts the technique of teletype or computer auctions introduced overseas [21]. The system calls for some classification of pigs either on the farm or in regional (country) saleyards with the lots offered for sale fed into a teletype network and shown on display screens to prospective buyers. Buyers bid for the pigs offered, and arrangements are made for the transport and slaughtering of the pigs after the sale has been made. In this way bidding is competitive, while avoiding the kind of double handling usually associated with the live auction of animals at some central saleyards. There are other details in the operation of the scheme, such as the need to rate local inspectors on their ability to accurately classify the pigs, but according to Hawkins *et al.* [21], the scheme seems to be operating with considerable success in Alberta, Canada.[19]

5 Security of Markets

A feature of the S.A. pigmeat market in recent years has been the vertical integration of the three major bacon and ham processors with large intensive piggeries,[20] thus reducing the marketing outlets for the traditional small producer. Furthermore, together with the direct sales links established between individual intensive producers and processors, this means that all of the fluctuations in supply and demand have to be absorbed by the small herd owners who continue to sell through the auction

[19] At the time of writing both SAMCOR and the Westralian Farmers Co-operative were investigating the possibility of establishing a teletype sales network, employing local stockagents to feed in the necessary information on stock offered for sale.

[20] Increasing vertical integration of the operations of piggeries and processors is also a feature of pig industries overseas. For example, Dirks and Fienup [14] describe vertical integration in the U.S.A. and Corbett [12] points out this phenomenon in Britain.

system. It was particularly clear from interviews with processors, both in S.A. and Victoria, that they preferred to keep their regular suppliers satisfied (by, if possible, taking all their pigs), and "topping up" the needs from elsewhere. The effect is that intensive producers see considerable merit in forming associations with a processor, either through "gentlemen's agreement", or by contract, leaving less and less of the market's need to come from uncommitted, but competitive suppliers.

Processors apparently have two main motives for vertical integration:

(a) ensuring a stable quality and quantity of pigs for killing and processing. This has advantages in efficient use of killing and processing facilities and also in terms of consumer acceptance of the quality of the final product.

(b) Capturing the economies of size associated with large scale piggeries [23, Chapter 5] to obtain pigs at lower cost.

Many independent producers feel that they can best preserve their future place in the pig market by forming a marketing co-operative which can establish the same type of links as those established by the vertically integrated intensive piggeries. For example, the Darling Downs Co-operative in Queensland has secured its own outlet for pigs by the purchase of slaughtering and processing facilities. The same is the case in Denmark where 90 per cent of the pigs slaughtered are slaughtered in co-operatively owned factories [22]. Other co-operatives, such as the Victorian and Tasmanian pigmeat marketing co-operatives,[21] have stopped short of purchasing processing assets (vertical integration), and are content instead to establish working relationships with processors through the operation of the direct sale technique.

The capital and labour requirements, and the managerial skill required for this latter type of co-operative are much less than the requirements of a co-operative which is integrated to the final product stage. Historically, the fully integrated co-operatives have tended to be more successful. They last longer and have a good deal more market power than a marketing co-operative dealing with an oligopolistic processing industry.

In the S.A. case a non-integrated marketing co-operative would give members greater market power, especially when dealing with the "big three". However this does not seem to be warranted in view of the competitiveness of the local market. At present, the ease of entry into meat wholesaling and the importance of the Victorian buyers ensures the competitiveness of the local buying market. An integrated processing co-operative would be in competition with the "big three" mentioned above and also with the various wholesalers and smallgoods manufacturers, both local and interstate. Both types would need to operate as commercial enterprises and could not afford to subsidise any inefficiency in production by members without affecting its own long run viability.

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[21] At one stage the Tasmanian co-operative was negotiating for the purchase of a slaughterworks near Hobart, but that idea seems to have been dropped by the Board because of the costs involved.

Within the constraints imposed by profitability (and therefore price), processors accept — and even initiate — some form of integration with pig producers to achieve a regular supply of pigs of consistent quality. Thus, to succeed in maintaining a share of the market in the long run, a marketing co-operative must match the supplies of intensive suppliers, or be prepared to accept some price discount for quality defects. Even if the average quality of pigs is judged to be inferior to that supplied from other sources, the co-operative may still maintain a share of the pigmeat market if their profit net of the cost of producing this "inferior" meat matches that of the other producers of pigs. That is, the long run survival of the marketing co-operative and its members will depend upon the operation of the usual underlying economic forces.

6 Returning Middleman Profits to Producers

Pig farmers are often heard to complain that only a small fraction of the final sale price to consumers represents the payment to producers.[23] It is well known that this complaint typically ignores the value added to the pig on the hoof by processors and distributors before the meat is finally sold to the consumer. As was noted in Section 2 above, the trend towards more intensive meat processing and packaging is likely to continue. Returning a greater share of the consumer's dollar by reducing the marketing margins may in fact reduce the absolute incomes of pig farmers as consumers buy other meats in preference to the less processed pigmeat.

Nevertheless, it is possible that excess monopoly profits are earned in the traditional "middleman" activities of processing and wholesaling pigmeat because of barriers to entry, or for other reasons. If this were the case, a marketing co-operative could benefit members as long as it could carry out these middleman functions at least as well as existing processors and wholesalers.

An examination of the fresh pork wholesaling and the smallgoods trade in S.A. revealed low barriers to entry with a relatively large (but fluid) number of participants.[24] So long as these firms do not attempt to set up their own killing chain, the capital needs are small. The major requirement for pigmeat wholesalers is a knowledge of the trade, so that wholesalers tend to deal in all types of meat, not just pork.

While the capital needs of a bacon factory are significant,[25] the greatest barrier to entry, like that of other smallgoods producers is the need to establish a brand name to obtain an adequate share of the market. But even here, with the growing tendency for supermarket retail chains to contract for processors to cut and pack the meat under the supermarket's own brand name, the barrier is not insurmountable.

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[23] The figure seems to be much the same in S.A. as it is in N.S.W. where Griffith [17, 18] estimates that about a quarter of the retail price of bacon represents the price paid to farmers.

[24] While the BCS [8] in its census count of 1970 estimated that there were 32 meat wholesalers in S.A., the trade itself (represented by the Allied Trades Federation, the Australian Meat Board and the S.A. Meat Exporters Association) could not estimate how many wholesalers were operating at any one time, let alone how many were dealing in pigmeat.

[25] We estimated, that in terms of 1977 prices, the minimum amount required to obtain a controlling interest in a small, but apparently viable bacon factory in S.A. was $500,000. To establish their own bacon factory and outlets, something like $1 million could be required.

Not surprisingly then, we found no evidence to suggest that the existing firms are making a greater return on capital than could be obtained on comparable investments, and in fact the return for two of the companies did not even compare favourably with the return on a risk-free investment such as government bonds. An examination [23, Chap. 6] of the published accounts of the three major S.A. pigmeat processors indicated that, even *without* adjusting for inflation, there was low profitability in two of the three companies and variable profitability in the third. Furthermore, the results would have been worse if the amount of profit had been related to the *current* value of assets held.

Similarly, although it was not possible to separate out the fresh *pork* selling activities of meat wholesalers from other meats, the very frequency with which wholesalers either enter or leave pigmeat wholesaling (for other meats), and the fluid population of wholesalers, suggests low long term profitability in the industry.[26]

Finally, an examination of the affairs of other co-operatives revealed that the price paid to members, *including* their bonus for funds invested, was not noticably higher than that paid by private processing firms. This provides strong supporting evidence for the conclusion that a producer co-operative could not improve on the performance of existing private companies and thereby increase the returns to producers. Indeed to the extent that a new entrant increased competition further, or induced retaliation from existing processors, the profitability in the industry might fall even further. Notwithstanding this conclusion, producers may wish to accept the poor returns achievable on funds invested as a trade-off for other desirable objectives which a marketing co-operative might achieve, such as increasing the security of outlets for their product, or improving their knowledge of the needs of the market.

7 Merchandising

One further possible task suggested for a S.A. pigmeat marketing co-operative is the bulk purchase of inputs at a lower price to members than is available on the open market. In some cases, for example with bulk commodities (such as grain feed) transported over long distances, transport used to carry pigs to market could be used to backload the purchased inputs to the farmers.

The now defunct North West pigmarketing group invested considerable time and effort in merchandising, but, because of the high administrative costs involved, appears to have actually *lost* money in this activity.[27] The Primeat Society in Victoria indicated to us that the *gross* savings from merchandising were no better than those obtained when two or three members get together and place a bulk order themselves. In fact, although not costed, there seemed to be little if any net benefit, since merchandising

[26] Similarly, while it was not possible to obtain figures on the profitability of small specialist smallgoods manufacturers, the low barriers to entry and frequent failure of this type of firm does not suggest that excess profits are being made in this section of the pigmeat trade.

[27] The general manager, R. G. Cameron, admitted during interview [11] that merchandising was a "costly mistake" for the co-operative.

occupied considerable time and effort on the part of the employed staff of the co-operative. Certainly in Denmark, where the co-operative movement is in an advanced state of development, marketing co-operatives do *not* engage in merchandising. What co-operative merchandising that does exist is carried on for the benefit of *all* farmers, not just pig producers, just as this is the case for a private firm merchandising a particular product throughout the farm sector.[28]

Our own examination of the S.A. market suggested that bulk discounts could be obtained from feed suppliers which ranged from two to eight per cent. Given that administration costs are likely to absorb all of this discount, the chance of a marketing co-operative engaging in profitable merchandising would appear to be very slim.

There may, however, be some other less direct benefits to be derived from some forms of merchandising by the co-operative. For example, a co-operative may wish to influence members to improve the quality of meat produced by using certain additives in the feed or providing certain medication for the pigs. Again, the purely financial results of such activities depend upon a comparison of the marginal cost of engaging in the activity and the marginal revenue (increase in quality and price) that follows. Certainly some contractual arrangements between pig producers and processing firms include feed supply as an integral part of their operation, but it is usually impossible to distinguish the net advantage of this activity to producers from the desire on the part of the processor to pursue a rewarding sideline activity.[29]

8 Results and Conclusion

In this paper we have examined the economic issues involved in establishing a pig marketing co-operative in South Australia. We have not considered any of the problems of making a co-operative operational if the decision is taken to establish one. Details of members' rights and obligations, financial and managerial structure, sources of capital and technical aspects of operation all need to be considered carefully. The answers to some of these problems depend in part on what sort of co-operative is being established, *i.e.* is it a fully integrated co-operative with killing and processing facilities or is it just a marketing organisation performing a co-ordination and administration role?

The experience of co-operatives that have failed[30] suggests that financial and technical management of a *professional* nature is one necessary condition for operational success. Another is that the capital backing be commensurate with equivalent commercial enterprises. These and other lessons can be learned by comparing co-operatives that have failed with those that have succeeded as we have done elsewhere [23, Chapters 3 and 4].

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[28] A description of co-operative merchandising in Denmark can be found in Knudson [22].

[29] In both S.A. and Victoria vertical integration between intensive pig producers and processors exists where the processor is a firm with the controlling interest in a flour and feed enterprise.

[30] For example see Cameron [10].

Potential members of a pig marketing co-operative are farmers who do not have close and satisfactory links with a processor. They often have small herds of pigs and engage in mixed farming. The dominant avenue open to them to sell their pigs is by live auctions. They are therefore subject to fluctuating prices and receive very little information from the market about the preference of consumers or about the quality of pigs that they produce.

A key role for co-operatives is therefore to bridge the gap between market needs and producers through negotiating direct sales with processors. Direct sales will not only dampen short term fluctuations in price, but also improve the farmer's knowledge of the quality needs of the market. To the extent that pig producers respond to these quality needs, the incentive for processors to look backwards to integrate with other sources of supply will be reduced.

Attempting to increase the security of outlets for co-operative members by other methods, such as ownership of processing assets is not likely to be financially rewarding, at least in the short run. However, economic returns are not only measured in short-run financial terms, and the increased security of ownership of a marketing outlet may outweigh the investor's loss of a better return on funds obtainable elsewhere.

While there appears to be a similar trade-off decision to be made in deciding whether or not to engage in merchandising, there is less support for accepting this function because of the likely composition of the co-operative membership. To the extent that they are mixed farmers, the bulk of feed can be obtained from on-farm crops, and the merchandising case then only becomes applicable to additives.

It is significant to note that all the marketing aims specified above could have been achieved *without* forming a co-operative. Marketing information can be obtained from marketing groups, in certain cases from the local pigmeat processor. The marketing costs of direct selling can be reduced by selling directly to processors, especially if any price discounting by processors is less than the marketing costs avoided. Given the low barriers to entry in the meat trade, a pig producer who can match his rivals in cost and quality is assured of a future outlet for his pigs. There appears to be no case for establishing a marketing co-operative with the fundamental aim of meeting this need alone. Finally, there was no evidence to support the assumptions underlying the last two aims; those of "middleman" profits and merchandising gains. On the contrary, financial returns from these activities appeared to be poor and they should only be considered as an objective of a merchandising co-operative if they produce other benefits which outweigh their poor financial returns.

The final judgment on whether there is a case for or against a marketing co-operative in South Australia therefore depends upon the aims of prospective members. If all that is required is better information and lower marketing costs, then the judgment is confined to comparing direct marketing via a co-operative with individual direct marketing. On the other hand, if the long term security of a market outlet is the over-riding consideration, then the prospective member has to decide whether that goal (if achievable) is worth the investment of funds required. Whatever the decision, the co-operative must be able to match the dictates of the market.

As demonstrated by the *successes* of some pigmeat co-operatives (in Denmark and in Queensland) and with equal force by their *failure* in other parts of Australia, market forces will predominate in the long run, and "... a co-operative should not be established in the forlorn hope that it is some kind of miracle device which can be used to swim against the tide of economic events" [23, p. vii].

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