THE POLITICAL ECONOMY OF THE SOUTH AFRICAN DAIRY INDUSTRY: A PUBLIC CHOICE ANALYSIS

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Abstract

The political economic structure of the South African Dairy Industry is analyzed using public choice theory. The Industry is comprised of various interest groups which are found to be interdependent. Some groups have the ability to inflict internal and external effects on other groups as a result of political power they possess. Manufacturers are the most politically effective group, having the ability to inflict external effects on other interest groups. They can spread the costs of the 'milk is milk' system among interest groups in the Industry. Their political power is mainly due to the dominant position they attained under protection of the Board before deregulation. Extensions of the public choice theory were found to be beneficial in explaining certain actions within the Industry. A gradual phasing out of regulation is recommended. Policy-makers can still play an important role in providing traditional public goods and services such as information, restricting monopoly control and marketing promotions. Freedom of entry of new dairies is essential to protect the interests of consumers and producers.

Uittreksel
Die politieke ekonomie van die Suid-Afrikaanse suiwelindustrie: 'n Publieke keuse analise

Die politieke ekonomiese struktuur van die Suid-Afrikaanse suiwelbedryf word met behulp van die sg. 'public choice'-teorie ontleed. Die bedryf bestaan uit verskeie belangegroepe wat interafhanklik blyk te wees. Party groepe het die vermoë om interne en eksterne konflik op ander groepe af te dwing vanweë die politieke mag wat hulle besit. Vervaardigers is polities die effektiefste groepe, vanweë hul vermoë om eksterne effekte op ander belangegroepe af te dwing. Hulle kan die koste van die 'melk-is-melk'-stelsel onder belangegroepe in die bedryf versprei. Hul politieke mag is hoofsaaklik toe te skryf aan die oorheersende posisie wat hulle voor deregulering onder beskerming van die Raad verkry het. Uitbreidings van die publieke keuseteorie is voordelig gevind om sekere optredes binne die bedryf te verklaar. 'n Geleidelike uitfasering van regulering word aanbeveel. Beleidmakers kan steeds 'n belangrike rol speel in die verskaffing van openbare goedere en dienste soos inligting, die beperking van monopoliebeheer en bemarkingspromosies. Vryheid van toetrede vir nuwe melkerye is noodsaaklik om die belange van verbruikers en produsente te beskerm.

1. Introduction

Many agricultural policies have a direct effect of transferring wealth from taxpayers or consumers to producers and/or manufacturers in an attempt to reduce risk. These policies distort the traditional market - price signal mechanism. These policies cause interest groups in the Dairy Industry to respond not only to market signals but also to government policy variables. One of the main motivations for government intervention in this Industry is instability. This instability arises from yield uncertainties, asset fixity, inelastic demand and supply, rapid technological change and incomplete information sets.

Government intervention has usually been treated as an exogenous force. The political market place has been either ignored or considered in isolation from the economic market place. An alternative concept of government is the introduction of self-interested individuals who participate in both political and economic markets where policies are implemented to affect wealth transfers from which resource reallocations are by-products.

This paper will apply public choice theory to the South African Dairy Industry. The Dairy Industry has attempted to deregulate and has met with varied success. It is hoped that this paper will provide a greater insight into the deregulation process and facilitate its implementation. Public choice is the economic study of nonmarket decision making, or simply the application of economics to political science (Mueller, 1979:1). Public choice theory is used because the Dairy Industry is characterised by interest groups that act to maximise their own interests. It will look at the potential for interest groups to capture rents and practice price discriminating behaviour. Government restrictions upon economic activity give rise to rents that interest groups compete for (Krueger, 1974). As far as is known, this is the first attempt to analyze the Dairy Industry in a political economic aspect.

1. Theoretical considerations

1.1 The public choice context

Public choice can generally be applied to all decision-making processes. Emphasis is placed on a rational self interested individual who tries to maximise his/her utility subject to certain constraints. Public choice entails studying policy issues in terms of costs and benefits not only with regard to the policies' economic feasibility but also the political feasibility of alternative measures (Peltzman, 1976).

Senior Nello (1984) observed that when dealing with the political process one must identify those economic agents who expect the policy to affect their interests, and assessing what and how strong they expect those effects to be.

Within the public choice theory there are two different models of policy determination. These are the public and private interest theory with considerable overlap between them (Mueller, 1979:7).

For a policy to be feasible and desirable, it must satisfy both private and public interest criteria. Public choice theory has been used to try and explain what governments do rather than recommend what they should do. This theory relies on the work of Downs (1957), Buchanan and Tullock (1962) and Olson (1965) on collective choice and voting behaviour. Stigler (1975) introduced a new focus on the role of private interest pressures in the process of policy formulation. Not all government decisions are in the public interest, some are simply acts of utility maximising agents who have policy powers of government vested in them Dahlman, 1979). Policy outcomes depend upon the costs and benefits accruing to individuals involved. These costs and benefits are broadly defined, including costs of organising and applying political pressure, and costs of achieving transfers to particular groups (McCormick and Tollison, 1981:18).

Strong political pressure for nonmarket intervention may create an effective demand before there is adequate knowledge or time to consider potential side effects. The short time horizons of political actors influence them to overlook potential externalities (Wolf, 1979).

1.2 Transaction costs

At any point in time the political economy consists of sets of organisations, each with given boundaries in terms of activities it controls. The political economy works through transactions, which are units of interaction among individuals and organisations. Transactions are social, political, and economic, involving transfers of benefits, cost of information, rights, privileges, and obligations (Shaffer, 1969).

One person's right to act means that others are limited in avoiding the consequences. These rights decide who gains and who loses. Political power is the ability to implement one's interests when they conflict with others. If interests conflict, the interests must be weighed up and one or more discarded, i.e. that interest external to the policy-makers (Shaffer, 1969). Competition among pressure groups for political influence is in reality competition for the right to create an external effect on the conflicting group. Costs are not always distributed equally over the various interest groups. Choice of institution affects how these costs fall on different groups. Existence of differential transaction costs creates opportunities for one person's choice to impact on others (Schmid, 1987:95).

Schmid (1987:95) distinguished between three types of transaction costs. These are contractual, information, and policing. Contractual transactions can promote stability which is one of the objectives of the Dairy Board. There are costs of organising these contracts. Some groups are in a stronger position to secure contracts than others.

A person needs information to interact effectively in transactions with other parties. Information can be supplied by the government. Private institutions may arise in response to information costs. Information can be readily translated into influence and power (Wolf, 1979).

An incompatible use policy may lead to a loss of an interest's groups surplus which is an external effect, e.g. the levy system. This external effect is an opportunity cost to the winning interest group while the opportunity cost to policy-makers is the potential loss in votes that the policy choice causes (McDowell, 1985).

1.3 "You first problem"

In the case of special interest groups, education and better information may not bring about improvements as these groups are well informed and try to maintain their special advantages. Each group has an incentive to stop rent-seeking activity only if other groups also stop (Anderson and Hill, 1980). Indeed, each group may conclude that the best strategy is to get all other restrictions on competition abolished while retaining its own special advantage (Tullock, 1989). It may not be possible to reach consensus between milk producers and consumers or between maize producers and consumers etc, due to the prisoner's dilemma or "you first problem". This suggests that constitutional reform may be required to control rent-seeking.

Buchanan applies the unanimity principle at the stage of constitutional choice - the stage of choosing the rules by which the citizens of the political economy will live (Baird, 1989). The unanimous consent principle assumes that each person makes evaluations under a "veil of uncertainty" as to his or her specific interests in an indefinite number of future applications of the constitutional rule (Baird, 1989). Due to the "you first problem", Buchanan's consensus principle does not apply to the specific policies. Buchanan's unanimous consent principle is not met where there are specific interest groups, and where these groups know how policies will affect them. Buchanan's consensus principle thus applies to the setting of the rules (constitutional level) and not to the policies themselves. A possible constitutional reform is the acceptance of the principle of "free to trade" along with other principles such as "freedom of religion" etc. The focus is thus on individual choice. The instability in milk production may lead to "market failure" situations, but the cost of "market failure" needs to be compared to the "cost of governmental failure", if interference is considered.

2. Public Choice applied to the South African Dairy industry.

2.1 Overview of the Dairy industry

Recently the Dairy industry has experienced a surplus of milk solids (skim milk powder and butter). A fifty eight percent increase in surplus of milk products was expected for the 1991/1992 season coupled with a fall in the increase of total consumption of 1.4 percent (Agrocon, 1991).

The increase in surplus milk products is due to the high producer price realised. This induces increased production of fresh milk which results in an increase in the production of industrial milk by manufacturers. The decline in increase in total consumption has largely been attributed to economic factors such as a decrease in income available for spending, increasing unemployment and high inflation (Agrocon, 1991). The white population group is the main consumer of fresh milk and a low population growth rate of this group has also contributed to a decline in the increase. Surplus milk products are currently exported at the expense of the Industry through a levy system. No state support is given to the Industry and on foreign markets it has to compete with products whose prices are heavily subsidised by other governments. The world price is currently about 20 cents per litre (Clover, 1992).

Prior to 1983, the Dairy Industry was heavily regulated (see Dairy Board, 1988). Since 1983, it has embarked on a process of deregulation. There are no longer retail price controls on fresh milk, butter or cheese. Wholesale price determination in respect of cheese together with restricted registration of milk distributors and manufacturers were abolished.

From 1 September, 1988, the "milk is milk" system was implemented, a uniform marketing system for all milk. The Dairy Board's main objectives are to render a service to the Industry; to stimulate growth in the Industry; and to accomplish stability (Dairy Board, 1988). These objectives have only partially been achieved. The Board stated that this deregulation process would enable each buyer to determine his own selling price, and by means of free enterprise and competition among milk buyers, processors and manufacturers, the consumer would be assured of a regular supply of milk and dairy products at a reasonable price (Dairy Board, 1988). Distribution of political power affects the independent objectives of the policy-makers resulting in different outcomes than that stated by them (Becker, 1983). In theory, the deregulation is meant to increase price flexibility. Producers are supposed to be able to negotiate their own selling price with manufacturers. The milk manufacturer can determine his/her own selling price.

The Dairy Board's only form of financing, is the collection of levies. In terms of the Dairy Scheme, the Board may impose administrative and special levies. The figures stated refer to the 1991 season. The administrative levy, used to cover the Board's administrative costs, was 0.433 c/l of milk and the special levy was 5.673 c/l of milk. Of the special levy, 0.147 c/l was paid to the Commodity Services Fund, 0.556 c/l into the Marketing Fund and 4.970 c/l into the Stabilisation Fund. The Commodity Services Fund finances the Milk Recording Scheme, the National Dairy Committee of the South African Agricultural Union and several other organisations and institutions in the Industry. The Marketing Fund is used to finance market promotion activities. The Stabilisation Fund is used to counteract shortages or surpluses (Dairy Board Annual Report, 1991:23).

In the case of shortages, it can be used to fund transportation to areas experiencing shortages or for imports. In the event of surpluses, the fund can be used to remove them to prevent a further threat to stability in the Industry. Surplus milk is processed into products such as skim milk powder, butter, cheese, and sometimes full cream milk powder. Surpluses are removed by subsidising the price on the local market using levies and then by exporting them. The Dairy Board contends that although milk buyers can arrange the flow of milk and enter into agreements with producers concerning the transportation of milk, the removal of surpluses and supplementation of shortages is necessary to achieve price stability within the Industry.

2.2. Interest groups

The Dairy Industry is comprised of various interest groups that are linked together (see Figure 1). Five interest groups can be directly identified in the Dairy Industry. These are producers, private distributors, manufacturers, consumers and policy-makers. However, due to the fact that some producers also have interests in the manufacturing and fresh milk distributing side, two more interest groups can be identified. These are the manufacturer-producer group and private distributor-producer group. The private distributors are not directly represented on the Board, however, they have the ability to organise themselves for a concerted political action. This along with wealth, socio economic status, and political representation, determines control of certain political resources which constitute an interest group's base of power (Zusman, 1976).

The policy-makers include the Board, National Marketing Council and the Department of Agricultural Economics and Marketing and the Minister of Agriculture. The Board is made up of fourteen members representing various interest groups. Eight members represent producers' interests, two represent manufacturers of dairy products, two represent consumers of dairy products, an additional member appointed by the Minister as well as a technical adviser.

The dairy producers are represented by the National Dairy Committee of the South African Agricultural Union which represents about nine thousand farmers. The producers are also more than adequately represented in the policy-makers interest group (eight out of a total of fourteen members represent the producers).

2.3 Interest groups' opportunity sets defined

Human interdependence is the occasion for both cooperation and conflict (Schmid, 1987). Rights are used by society to control and order human interdependencies and effect economic performance and outcomes. There is strong interdependence between interest groups in the Dairy Industry, strongly governed by rights that each group is allocated or fights for.

Each group has an opportunity set encompassing available lines of action open to an individual or group determined by the structure of rights and ability to use them. Interacting opportunity sets make up the institutional structure (Schmid, 1987). Deregulation alters opportunity sets of different individuals or groups. This changes the institutional structure of the industry. Property rights to rents transferred by different policies in the Dairy Industry are not well defined, e.g. levies. Groups must consume real resources in obtaining and retaining rents generated by intervention and resisting policies which would be to their disadvantage e.g. current court case contesting levy system.

Given the current programs:

- the producers' opportunity set is characterised by the right to expect a minimum price of 44.53 cents/litre set by the Board each year (Dairy Board, 1991). There is no seasonal flexibility with regard to the setting of these prices in winter and summer.

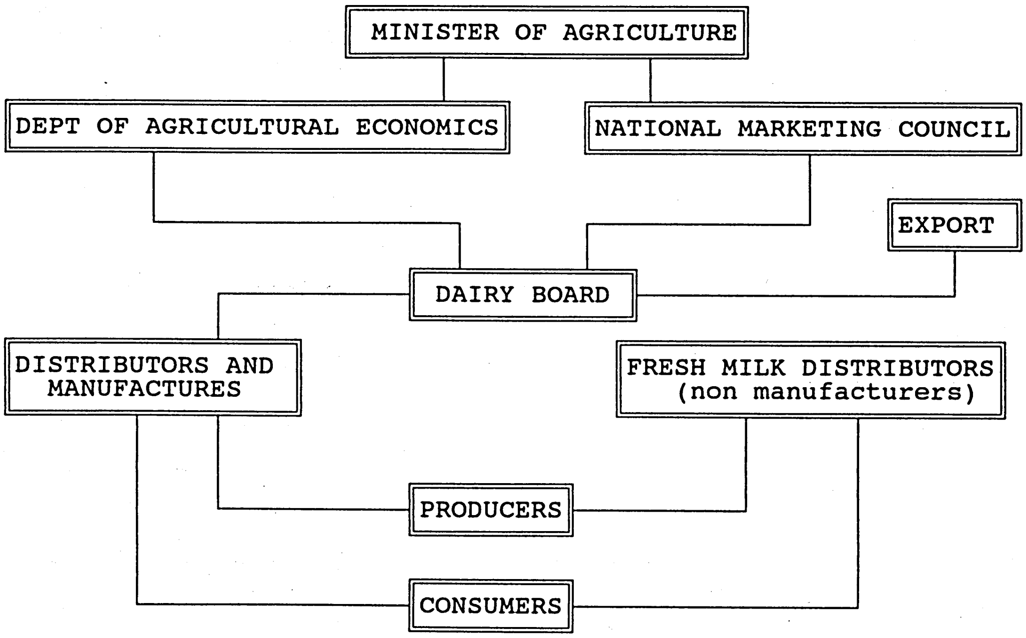

Figure 1: Groups within the Dairy Industry
Source: Dairy Board, 1991

They can decide whom they wish to sell to although geographical constraints cause some of the large manufacturers to monopolise certain rural areas. Producers have a politically strong Agricultural Union where they can voice their opinions and are strongly represented in the Dairy Board.

- manufacturers have a right to expect that their production is bought due to the current surplus disposal scheme.Surplus industrial milk is purchased by the Board at a price that takes into account the minimum floor price and costs of producing industrial milk. Indirectly, manufacturers are strongly represented by the Board because some large producers have manufacturing interests as well. They can expect non manufacturers to pay the levy used in the surplus disposal scheme due to the current levy system. Due to the nature of the dairy institution they have the ability to pass increased costs on to the consumer in the form of higher prices.

- the policy-makers have the right to impose costs or external effects on certain interest groups, especially those that are not politically powerful in order to promote the utility functions of those groups that are powerful. Thus policy-makers stand to benefit from continued existence of the Board and their objective is to secure their position or status in the Industry.

- consumers have no defined rights within the dairy industry other than those rights that society expects, namely a price closely related to conditions of supply and demand in the market. However, consumers have relatively little say with regard to this right. The perishable nature of fresh milk should enhance the market bargaining power of consumers. The surplus disposal scheme reduces this power as fresh milk not sold on the local fresh milk market is processed and sold on the industrial market either locally or exported. Increased availability of information relating to distortions that are occurring within the Industry may facilitate consumer group action.

Deregulation has resulted in the opportunity sets of manufacturers and private distributors being less constrained by government and available lines of action open to them have increased. There is much more flexibility in price structuring and production. Policies adopted depend upon the balance between distribution of political power and costs of redistribution. Inefficiencies of the policy arise from poor identification of political property rights. Focus on rules of policy rather than on actual policy outcomes may be more productive (Martin, 1990),

2.4 The economic and political structure of the Dairy industry

The Dairy Industry consists of an economic and a political structure. Considering the two main groups, namely fluid and industrial milk, the dairy economy can be described as having the following set of relations. A domestic supply relation for both fluid and industrial milk; a demand relation for each group, and an export relation for industrial milk. These relations contain various policy instruments. Policy instruments currently in use are producers' price and the price that manufacturers receive for their surplus industrial milk. This economy is restricted in several ways with regard to feasibility of policy variables and their values. Values and variables are constrained by administrative and technical considerations, and political feasibility.

Once the rules are agreed upon by the policy-makers and made public, players tend to optimize within the given constraints they face. The preference of each group with respect to the state of the economic system is given by the groups objective function (Zusman, 1976). The political structure consists of interest groups whose well being depends on the state of the economic system and therefore on levels of the policy instruments. The political problem is the resolution of conflict arising between various groups attempting to influence policy makers to adopt a policy that will maximise the group objective function. In an attempt to influence the policy, a group may exert political pressure by promising support or campaign funds or by threatening political sanctions depending on whether the policy will benefit or harm the group (Zusman and Amiad, 1977). Benefits and costs that arise from a particular policy are evaluated by policy-makers while costs of exerting that power, and the benefits gained are evaluated by interest groups.

It is assumed by Zusman (1976) that the political economy may be represented by objective functions. The objective functions for each interest group are interdependent. The objective function identified for the producer's group is producers' surplus or their net income. The manufacturers can be represented by their manufacturing surplus or net incomes. Consumers' objective function is identified with consumer surplus.

The ultimate policy decisions are made by the Minister of Agriculture. Policies are presented to the Minister by the Dairy Board. Due to the fact that the Dairy Industry no longer receives subsidies from the state, an objective function of minimising subsidy cost would be inappropriate. Although the Dairy Board's main objective has been to gradually reduce its intervention in the Industry and act in the public's interest, it appears that policy makers are rent seekers on behalf of their clients, namely producers and manufacturers. Therefore their objective functions can be identified with maximising producer and manufacturer surpluses or net incomes. This leads to a conflict as a higher producer price means less surplus for manufacturers. However because of the weak political position of consumers, this negative effect can be passed on to them in the form of higher retail prices (deregulation has increased price flexibility on the seller side but not on the consumer's). Consumers are a diffused political entity. Their awareness and sensitivity to changes in policy parameters are low. Apart from a small representation on the Dairy Board (one out of a total of fourteen members on the Board), they lack any formal organization. The press occasionally expresses the consumers' views. Manufacturers' ability to do this is limited to a certain extent due to the emergence of private distributors. The nature of these redistributions will depend upon the distribution of political power and not upon any independent objectives of policy-makers. Although policy-makers claim to act in the public interest, their objective functions will change in order to ensure their continued existence.

Hardin's (1982:90) extension of the private interest theory incorporates the possibility of reaching an agreement on broad rules and approaches for policy choice which are socially desirable even if it is not possible to reach an agreement on actual policies. For example manufacturers support a generalised rule which would eliminate government interference in the Industry but oppose a reduction in surplus disposal subsidies. Different policy choices can emerge in the framework because individuals are likely to be uncertain about the effects of such a rule on their direct interests and hence support the approach which is likely to be best in a wide range of contexts. This extension remains within the rational utility maximising assumption of the private interest models but also defines policies from a public interest perspective (Martin, 1989).

3. Policy implications

3.1 Problems in the Dairy industry

Deregulation is a result of private and traditional public interest views. The Dairy Board (1991) states that with deregulation, free enterprise and competition among milk buyers, processors and manufacturers, will result in the South African consumer being assured of a regular supply of milk and dairy products at a reasonable price. Even with deregulation, the Dairy Industry finds itself in a difficult situation. The Dairy Board was expected to face a 9300 ton butter mountain and a 22600 ton pile of skim milk powder in 1992 and an export loss of R108 million for the 1991 fiscal years (Financial Mail, 1991). The cause of this was the high prices realised by producers and the price discriminating behaviour of manufacturers. Discontent in the Industry is centred around payment of the levy. The fresh milk distributors battle against paying the levy has reached the courts creating an internal effect for policy-makers. Proceedings are directed against the Minister, the Dairy Board and the National Marketing Council. The main problem is payment of the compulsory special levy, currently 5.673 c/l, which the Board claims from all milk buyers. Money is pooled into a stabilisation fund used to subsidise dairies manufacturing butter, skim milk powder and cheese during surpluses. Non manufacturing dairies receive no benefits from the subsidy but still have to pay the levy. They assert the system favours large manufacturers at their expense.

Manufacturing dairies contend that the levy is a form of insurance premium to cover risk. Non-manufacturing dairies are assured that their surpluses will be bought by manufacturers. Despite the subsidy, some manufacturers suffer a loss on the surplus removals. Manufacturers claim to have lost an estimated R81.6 million during the two year period ending March 1992 (Financial Mail, 8, 1991). This amount will be subsidised by levies manufacturers charge to producers. The Board pays manufacturers the floor price plus production costs rather than the market price paid to farmers. The producer price realised for the 1990/91 season was 67 c/l while the minimum floor price was 43.55 c/l.

Manufacturers are pushing for higher prices from the Board, based on the higher prices realised by producers rather than on the lower minimum price. Although most manufacturers experienced a surplus of milk, a few experienced a shortage. They argued it was necessary for them to offer higher prices to attract milk from producers and/or fresh milk distributors. The Board views this request positively stating that there will be no distortion of benefits towards the manufacturers. The higher levies would be reflected in higher consumer prices. Some manufacturers give producers a blend price that they realise in the fresh milk and industrial milk market and those prices that the Board pays them for their surplus. By increasing the Board's prices the producer price will increase, further aggravating the surplus problem and export losses.

The governing bodies state that seasonal and cyclic conditions make the industry unsuitable for regulation by the free market system alone. Existing regulations are found to serve vested and special interests (Financial Mail, 1, 1991). Nieuwoudt (1991) states that although the free market is more uncertain, it is more flexible and the present system is open to abuse. Controls inevitably lead to increased prices. Freedom of trade and sale is essential. Floor prices are unsuited to perishables. Seasonal changes imply that production costs vary seasonally and controls lead to over or under supply. When surplus occurs in summer, prices move down and surplus is absorbed as the benefit is passed on to consumers while in winter farmers could look forward to higher prices.

3.2 The levy system

The levy system is a tax on fresh milk production and a subsidy on milk products. It tends to increase the price of fresh milk to the consumer. These effects are external to policy-makers. Costs of administration are wasted funds which is an internal effect to the policy-makers. The levy system benefits dairies involved in manufacturing of milk products.

Payment of levies by fresh milk distributors is an internal effect as it reduces their surplus. This internal effect is an opportunity cost to manufacturers. The opportunity cost to policy-makers is the potential loss in votes. This is consistent with the theory as shown by McDowell (1985).

Under a free market system each dairy will have to match its own milk sales with deliveries of milk from farmers. The dairy will then have to adjust its prices of milk in accordance with market conditions. This price moves with the season, being lower in summer than in winter. Some dairies with larger manufacturing plants will use some of its own milk for manufacturing while also buying milk from other dairies who have surplus. This price may be low in order to make the sale of surplus milk to both parties attractive. Basically each dairy must accept responsibility for disposing milk bought from farmers. Currently surplus milk production leads to surplus milk powder and surplus butter that is exported on a market that other countries dump their industrial milk on. Regulation in agriculture has also created problems in the sphere of agricultural trade. Freedom of entry of new dairies is essential to protect interests of consumers.

3.3 Rent seeking and potential price discrimination in the Dairy Industry

Manufacturers have the ability to act as potential monopsonists in the short run in the fresh milk market. Manufacturers gained their market power through previous nonmarket action.

Producers in rural areas have become dependent on manufacturers buying their milk because of the distance to markets and prohibitive transport costs. Some manufacturers are introducing a yearly quota system to reduce their losses made on surplus industrial milk. Quotas will have to be bought by producers and will be based on the previous year's production. Any milk produced above these quotas will be purchased at a lower price. These quotas will be transferable between producer members of the manufacturer. Manufacturers (such as Clover and Creamline) have the ability to do this because they have monopolised certain rural areas.

Cost of transportation and the perishable nature of the product restrict producers from distributing milk themselves. The fact that producers remain with the present exchange mechanism implies that it may have lower transaction costs than alternative mechanisms. Exchange mechanisms differ by the amount of information, transaction costs, productive efficiency, risk, and market power allocated to buyers and sellers (Kilmer, 1987:134). Resources to organise alternative marketing arrangements may be costly. Producers will weigh up the costs and benefits involved (Dahlman, 1979). When externalities from present marketing conditions become too high relative to the transaction costs of setting up alternative structures, other mechanisms of exchange will be found (e.g. Independent Co-operatives).

Producers are restricted by incomplete information sets about existence and location of trading opportunities. There is uncertainty associated with undertaking transactions that would eliminate present externalities, and transactions costs and externalities that would arise in an alternative exchange mechanism. Transaction costs associated with exchange include costs of buyer and seller obtaining information on the supply and demand conditions, buyer searching for the best price, seller establishing a price that allows them to maximise profits, buyers and sellers negotiating an exchange price, and finally the cost of actually bringing about the exchange (Kilmer, 1987:138).

The ability of manufacturers to capture rents through the quota scheme is short term. Producers would find other means of distributing milk as some have already done (private distributors). This reduces the monopsony power of manufacturers.

In the industrial market, manufacturers seem to be practising price discrimination and spreading the losses from the surplus industrial milk among interest groups. Figure 2 shows profits and losses in the industrial milk market. The producer price of 0Pp results in 0Q2 industrial milk being produced by manufacturers. Manufacturers sell 0Q1 industrial milk on the local market at a price of 0PL. They realise profits represented by the area PLPpba. When local demand is exhausted at the 0P2 price level, the remaining quantity Q1Q2 is sold to the Board at the price 0Pb, determined by the Board. Manufacturers make a loss of area bced. This loss is partially funded by levies manufacturers charge to producers. The Board then sells this amount (Q1Q2) on the world market and makes a loss of area cfge. This loss is funded by manufacturers and private distributors. Therefore the surplus disposal scheme results in a total loss represented by the area bfgd. This loss is funded indirectly through levies charged by manufacturers to producers and directly through the levy system. Payment of quotas could be used to compensate manufacturers for the loss bced. Manufacturers cannot be blamed for distortions in the industrial milk market because there is free access into this market. Manufacturers cannot capture monopoly rents or practice price discrimination in a market characterised by free access.

3.4 Future implications

The main aim of deregulation in South African agriculture should be improved income growth, effectiveness, efficiency and equity (Groenewald, 1991). Deregulation of the Dairy Industry has created further problems by highlighting manufacturers monopsony powers which they gained under the direction of the Dairy Board, creating further potential conflict and wasteful rent seeking activities.

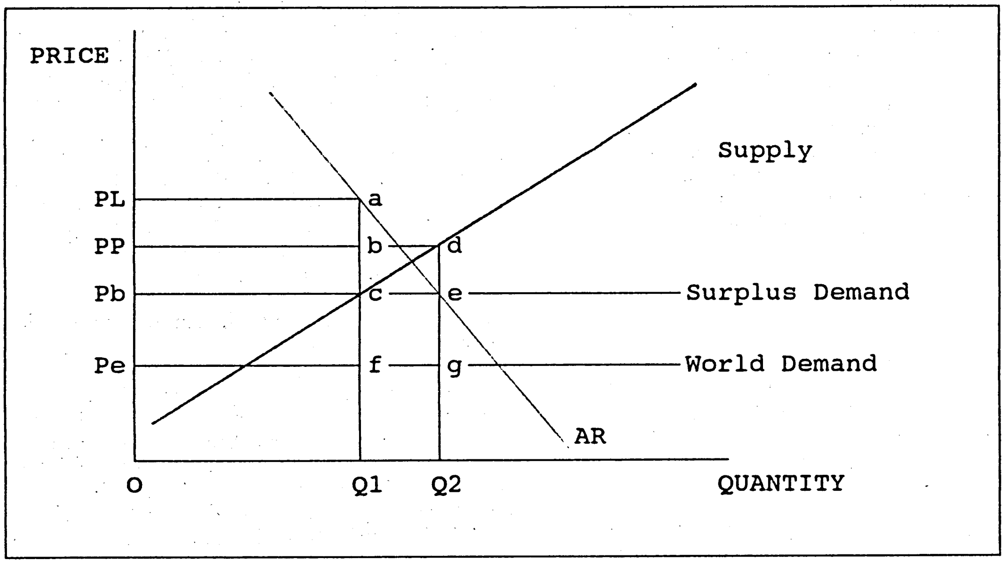

Figure 2: The Industrial milk market

Groenewald (1991) states that there can be no long run justification for the exemption of certain institutional types from monopoly legislation. Vested interests should not be allowed to keep on controlling services or supply, thereby earning rent to themselves to the detriment of all others.

There are two areas where costs are incurred with the dairy policy. These are in the political market and the economic market. In the political market there are implementation costs such as costs of information, transactions, administration, and bureaucracy. These costs may be reduced by improving institutional design and implementation procedures to achieve the desired political objectives.

Other costs include the value of resources expended by interest groups in rent or utility seeking activities. Rent seeking has been described as the 'activity of wasting resources in competing for artificially contrived transfers' (Tollison, 1982). In the economic market place there are costs associated with allocative inefficiencies. These include misallocation of resources in consumption and overproduction of milk.

The role of information in policy choice is important. There may be differences in the ability of competing interest groups to accumulate information due to different costs of obtaining information. Public provision of information may reduce differences in information sets of different groups. Increased flow of information to interest groups within the Industry is essential for a sound marketing system. This should be an important function of the Board. Provision of information may be sufficient to improve policy choice in some cases but not in others. For example, even if consumers became aware that a certain policy imposes costs on them, they may individually have insufficient incentive to incur the costs of organisation to effectively counter pressure for policy intervention. Ignorance may be a rational decision based on high costs of educating oneself relative to the negligible influence of one's vote on the outcome.

The surplus disposal scheme benefits manufacturers at the expense of private distributors, producers and consumers. If the Dairy Board did not have a surplus disposal scheme then the manufacturers would be responsible for the disposal of any surpluses on the export market. Prices in this market are so depressed by other countries' policies that it would not be in the interests of manufacturers to have any surpluses of industrial milk. The manufacturers would also be restricted from operating as monopsonists in the milk market. Even if they exerted production restrictions on their contracted milk producers they would not be able to realise any rents because other private distributors would enter the market. There would still be an important role for the Dairy Board in maintaining quality standards, monitoring prices, ensuring that they reflect market conditions, and restricting monopolies.

4. Conclusion

The Dairy Industry consists of a political economic structure. Political factors should be endogenously linked to economic factors in policy analysis. There are a number of technical and political constraints within which various interest groups must operate. These groups will strive to be as efficient as possible within their opportunity sets. As deregulation occurs so the opportunity sets change along with resource allocation as the interest groups change to become efficient under new constraints. The Industry is characterised by interest groups that differ in their ability to manipulate policies. The manufacturer interest group displays the most dominant rent seeking behaviour. Partial deregulation has resulted in further opportunities arising to manipulate the market, especially by those institutions that gained monopoly status through previous regulation of the market.

The Dairy Industry is plagued with the problem of overproduction of fresh milk. This was found to be a result of high producer prices and the surplus disposal scheme. High producer prices are expected to continue as manufacturers and other fresh milk distributors compete for market share. Manufacturers are unwilling to allow the consumer price (both fresh and industrial milk) to be more flexible i.e. higher in winter lower in summer. If prices were more flexible, then the surplus would be absorbed as the price would fall. The surplus disposal scheme is a costly way to attempt to promote stability in the Industry. The Scheme allows for manufacturers to practice price discrimination in the industrial milk market. The loss that manufacturers incur is subsidised by levies that they charge to their producers. The loss that the Board makes through exporting industrial milk is subsidised by levies that manufacturers and fresh milk distributors pay. Hence manufacturers, through the monopoly power that they possess over certain rural areas and the levy system, are able to spread their losses among the interest groups.

Producers are restricted in distributing milk because of incomplete information sets. There is uncertainty with undertaking transactions that would eliminate present externalities. Government will always have a function to fulfil in restricting monopoly control and trying to promote an equitable and effective environment that is conducive to efficient resource allocation, directed by the market or more specifically the market-price mechanism.

Deregulation in the Dairy Industry has generally been in the interests of dairy producers as the fresh milk market has been subjected to the increased competition. However, the present surplus disposal scheme has created pressures on producers in the form of levies imposed on them by manufacturers causing further distortions in the Industry. The manufacturers are a politically powerful interest group with strong representation within the policy-makers interest group. The 'milk is milk' policy and levy system has created opportunities for manufacturers to spread losses incurred in the surplus disposal scheme among interest groups. This detrimentally affects the Dairy Industry. The losses that manufacturers incur in selling their surplus industrial milk to the Board are partially subsidised by levies they charge to fresh milk suppliers (producers). The loss the Board suffers on the world market is covered by manufacturers and private distributors. Manufacturers cannot be blamed for the distortions because there is free access into the industrial milk market. By abolishing the 'milk is milk' system, the Industry can scrap the payment of special levies and hold manufacturers responsible for the removal of their surpluses. The price of fresh milk will fall to reduce the over production that has characterised the Industry. By gradually phasing out regulation in the Dairy Industry, it will lessen the impact of the political transition that South Africa is going through, thereby increasing political stability within the Industry and reducing the probability of nonmarket failures.

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