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# AGRICULTURAL COMMODITY PRICE ANALYSIS: POLICY OPTIONS FOR THE FUTURE

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## INTRODUCTION

Future policy options can be evaluated using criteria such as economic efficiency, equity, security, stability and growth (Sorenson and Rossmiller; Blignaut). It is unlikely that a specific policy would be judged the best in all dimensions and a trade off exists between criteria such as equity and efficiency etc. According to Feltner the U.S. has held efficiency of paramount importance while the E.E.C. has put equity considerations first at the cost of efficiency. The ultimate policy depends upon weights attached to the above criteria. The question is which way do we want to go knowing that European farms generally are small, inefficient and poor, while American farms are efficient, larger and wealthier.

Farm policy in recent years has been overshadowed by fiscal and monetary policies and farm policy cannot be seen in isolation.

## INFLATION AND INTEREST RATES

Farmers are vulnerable to changes in fiscal and monetary policies. Where the rationale for commodity policies has been the promotion of stability, fiscal and monetary policies have induced serious instability into agriculture.

High inflation rates and concomitant high interest rates create serious cash flow problems in agriculture. For instance in the absence of inflation, the interest rate could be around 4%. With a rate of return in agriculture of 4% to 5% no cash flow problem exists even with a large bond. With a 14% inflation rate and a corresponding interest rate of 18.6% (which is lower than current rates), the farmer has a serious cash flow problem. Inflation raises immediate cost but defers returns. This cash flow problem in itself is not the major issue because farmers will go into more debt but asset values will also be inflated and the debt to asset ratio may not change much. The real issue is when real interest rates also increase, forcing down land values which means that the security on which the loan is granted disappears, leading to insolvency.

Even though farming in South Africa may be profitable (Van Wyk), farmers are in a financial crisis, since debt escalates while land prices level off and may turn downward. Farmers are partly to be blamed for this and must accept some of the consequences, but at one time with negative real interest rates, and tax write-offs, you could not go

wrong if you bought land. The fact that the South African Agricultural Union is now asking the Government for a massive state financial aid of 1 billion rand shows that farm leaders are concerned.

The current movement towards more control in the South African agriculture may have been hastened by the credit crisis. Maize farmers are moving towards a two price system with quotas, while the dairy industry has adopted quotas on fresh and industrial milk. Farmers are now looking for more security and may resist reforms in commodity programmes if they are exposed to more uncertainty.

Farmers vividly remember the Great Depression of 1930-33 and attribute this to over-production in an unregulated and free market (Paarlberg, 1983). Paarlberg states that production in 1930-34 was actually 2% below the preceding years. He also attributes the sharp drop in farm prices during the depression, not to over-production or the prevailing freer market, but due to intervention, namely the control of credit leading to a general collapse in prices. It is significant that the financial crisis of the 1930's led to greater commodity policy intervention in many countries and any commodity policy reform must be seen against the background of external influences and the mood of the time.

According to the CAST (Council for Agricultural Science and Technology) Report, *instability* and *cash flow* are the two most important current economic problems in U.S. agriculture. The *main progress* for alleviating these problems is seen within monetary and fiscal policies and not with commodity programmes.

## COMMODITY PROGRAMMES

Alternative commodity policies, their pros and cons have been well described in literature (CAST Report, Tweeten, Bullock). Feltner and Brand also envisaged the structuring of agriculture in a freer market orientated economy.

Policy options range from a relatively freer market on the one hand to compulsory supply control at the other extreme. Few agricultural economists subscribe to a completely laissez faire free market approach (Bullock, CAST) although the majority view is that the market should operate with the least possible government intervention (Tweeten, Paarlberg, 1980).

The hard political choice is that increased farm income can only come from taxpayers (in the form

of subsidies), consumers (by raising consumer prices through controls) or improved farming efficiency. It is difficult to rationalise policies that artificially increase consumer prices, such as price discrimination, quotas or relies on large government subsidies. Policy attention should therefore be directed toward promoting efficiency in agriculture.

Commodity programmes in the past have attempted the dual purpose of stabilising supplies and prices and raising farm incomes (CAST, Blignaut). According to the CAST Report drafted by a task force of 23 U.S. professors and other experts, commodity programmes provide few benefits to the small farmer while the large farmer does not need it. Commodity programmes are often defended on the grounds that they protect the small farmer but programme benefits or subsidies accrue to the farmer in proportion to his sales. The small and beginning farmer can be best served through individual technical and credit assistance. The larger farmer may be better able to use the system to his advantage as in the case of beef permits/quotas where most of the permits are allocated to the large stable suppliers.

The question is now posed, what should be the government's role in agriculture?

## GOVERNMENT'S ROLE

Public investment in research and information systems can be rationalised in that research results are not patentable and the marginal cost of providing information is zero. Information is the fuel on which agricultural markets operate. Not only better information is required but it needs to be distributed better (Dobson). A greater role for the private sector in research and extension is, however, desirable.

Bullock (1983) also suggests the development of effective risk programmes while Feltner adds the provision of an adequate marketing infrastructure.

## SUPPLEMENTED PRIVATE SECTOR

There is a reluctance to rely solely on markets because of periodic instability in commodity prices and consequent periods of low incomes. A freer market approach assumes that there is no chronic tendency towards over-production or shortages in an unregulated market.

The *advantages* of a greater reliance on markets are:

- Long run prices different from unregulated prices result in surpluses or shortages.
- Interest groups take a sectional view.
- Price supports have not saved low-income farmers in the past and benefits have been capitalised into land values. Latt and Nieuwoudt estimated the supply elasticity for rural Black labour in Natal as between 5,2 and 8,3 using the simultaneous equation technique, implying that farm labourers benefit little from price support to agriculture.

- The farming budget would be reduced by less intervention.
- Commercial farmers may become more competitive with less intervention.

*Disadvantages* are:

- There is no free market internationally, therefore our government must intervene in self defence.
- Competition is imperfect in domestic markets because of middlemen market power.
- Unregulated markets may give rise to a series of years of short supplies and high food prices or excessive supplies and low farm income.

Instability of unregulated markets is often used as a rationale for interference. In the absence of a control board marketing system some price instability would be diffused in a futures market. Although futures markets are available in the U.S.A., only a small percentage of farmers, mainly large operators, use it.

With escalating input prices it needs to be determined to what extent input cost price inflation can be attributed to monopoly or cartel formation and anti-trust legislation could be enforced. It does not, however, follow that government intervention can improve the situation because imperfection in government behaviour may be as great or greater than for the market.

Removal of risk arising from short run price variation could promote society's welfare provided genuine price trends are not distorted. A floor price scheme for meat falls in this category if the scheme is run on a purely commercial basis, that is all meat purchased when prices are low should be sold when prices are high. A problem is that schemes such as these are launched with good intentions but it leads to further control. As Van Biljon explained, high floor prices had led to surpluses of meat which further led to quota control.

## PRICE DISCRIMINATION

Industry sales can be increased by shifting sales in markets of different price elasticities, for instance, higher fresh milk prices but low industrial milk prices. Where products are exported through a one channel marketing scheme, local prices can be kept above net export realization as in the case of maize and sugar cane (Groenewald and Nieuwoudt). The Dairy Board has used price discrimination by increasing local prices when there is a surplus of butter and cheese.

The demand for some products may be irreversible and consumers may acquire a taste for substitutes or may learn new recipes, as in the case of butter and margarine, beef and chicken, wool and synthetic fibres, sugar from cane and beet versus corn syrup. McKenzie has shown that high fresh milk prices in South Africa have encouraged consumption of substitutes.

The demand for milk was found to become more elastic over time with the greater ratio of low income groups in society (McKenzie). Restricting

milk supply through quotas may thus have a smaller impact on producer income.

The impact of price discrimination is to increase consumer prices; consumers are thus made worse off and farmers better off. The gainers gain less than the losers lose. If farmers generally are not less wealthy than consumers any policy that increases farm prices in the long run cannot be defined on welfare grounds.

Apart from social costs, administration and other costs of the scheme need consideration. Mc Kenzie has shown that half of the income transferred in the fresh milk scheme is taxed away by the Dairy Board to perform its functions. In the case of maize, price discrimination requires that all maize must be sold to the Board which could lead to cross haulage in transport of maize.

## DEMAND EXPANSION

We produce more food than our local consumption, but many low income consumers cannot afford to buy it. The answer in the U.S.A., to this dilemma is a Food Stamp Plan and a Food Lunch Plan. Consumers in South Africa benefit from subsidised bread prices but it is unlikely that subsidies on maize prices have been passed on to consumers because of the nature of the programmes. It is encouraging that Creamline Dairies have started selling milk at schools for 10c per 250 ml. The economic feasibility of such projects by other producer groups needs consideration. Some state assistance in a food lunch programme may be rationalised in view of the fact that we have surpluses of some commodities such as milk from time to time, while some cannot afford to buy it.

## QUOTA PROGRAMMES

In South Africa there is a move towards quota control in the maize and dairy industries.

These programmes may benefit one group of producers but harm others or consumers, while benefits become capitalised into higher land values. A quota programme is also a legalised monopoly because farmers can determine both their output and price.

Quotas can be ranked using the efficiency criterion. The least undesirable quota programme is an open end (unrestricted) market where quotas are transferable. For instance, allowing for transferability of quotas, cane farmers further from mills can sell their quotas to producers closer to mills. With the Cane Industry's proposed cut back in quotas and because transport cost is high for sugar cane, it is expected that a lively market would develop in quota sales. Allowing quota sales, however, has a practical problem in the sense that it would be virtually impossible to abolish the scheme in future once farmers have purchased quotas. So one strategy in policy is to make these programmes more flexible and less undesirable.

It is significant that neither the South African Agricultural Union nor the Department of Agriculture support the principle of using direct means to regulate production (Republic of South Africa).

It has been stated, in the case of beef, that if beef supply to abattoirs is not regulated through quotas, chaos will result, since the outcome will be either an over-supply or a shortage at the abattoirs. At Cato Ridge, during 1984 the average daily slaughtering varied from 528 head of cattle in January to 703 head of cattle in November. Without quota/permit control it is envisaged that the farmer would contact the abattoir and arrange for the slaughtering of his cattle, say 7 days from today: At Cato Ridge, the slaughtering per day could initially be limited to 703 animals, the maximum slaughtering for November last year. The system is no more complex than a train booking. The main feature is that every farmer will have the opportunity to sell his cattle on the city abattoir and not just the privileged large operators who currently have quotas or permits. Market prices could be stabilised either through actions of speculators and/or the operation of the Meat Board's floor price system. At present slaughterings at country abattoirs are also controlled through health requirements and limitations on number of cattle slaughtered. The latter point is one of the criticisms raised at the tractor rally in Pietermaritzburg. The distinction between controlled and uncontrolled areas for meat can only be made on the basis of the final product and using this as a criterion there appears to be no areas where slaughtering of beef is not controlled in South Africa.

## FUTURE DIRECTIONS

Probably the principal problem in agriculture is instability. Instability could arise from production, product prices, input prices and government policies. The following policies are suggested to reduce instability:

- Stable monetary and fiscal policies.
- Anti-trust legislation against cartels in input markets.
- Crop insurance through commercial markets (Sentra-oes). Minimal government support could be rationalised since risk borne by state is spread amongst so many tax payers that it is diffused (Arrow). I would not too strongly support crop insurance due to adverse selection and information cost problems and the high ratio of administration cost for such a programme in relation to payments. However, according to U.S.D.A. officials of all crop insurance schemes in the world, Sentra-oes is the closest to a private commercial scheme.
- Credit assistance to farmers during natural disasters. Masson has shown that if farmers have no source of borrowing (credit rationing) following crop failures, a risk neutral individual may act as if he is risk averse. This assistance

should not become entrenched and should be limited for a given season. Too much disaster assistance could lead to risk taking.

Farm programmes that rely on tax payer funding or on an artificial increase in consumer prices, will in future come under increasing political pressure. Policies should rather be applied to make agriculture more productive and competitive.

Agriculture is heterogeneous and policies appropriate for one segment may not be appropriate for others. Comments with respect to specific commodity programmes will consequently be made:

- Beef. Of all intervention measures the abolishment of quotas restricting supply at city abattoirs and the lifting of slaughtering restrictions on country towns may occur with the least disruption. Consumers would favour such a relaxation while producers who cannot get access to these markets may also favour it. Quotas limit the sale of beef in South Africa, and are especially restrictive during drought conditions when farmers want to increase off-take to reduce stocking rate. Quotas only favour the large and regular supplier who is usually a large feedlot operator.
- Milk. The surplus of industrial milk in the past has been partly attributed to price discrimination and rigid price control. The impact of price discrimination without quota control is that the pooled price cannot be increased above the free market price because to the extent that fresh milk prices are increased, industrial milk prices are depressed (no export market exists). A two price system thus induces over-supply of industrial milk and underconsumption of fresh milk. This results in an income transfer from consumers to producers, of which roughly half is taxed by the Dairy Board to perform its functions (Mc Kenzie). Findings agree with the view expressed by the National Marketing Council that fixing of fresh and industrial milk prices are not indispensable for the orderly marketing of fresh milk. A measure of stability is desirable but prices should be allowed to fluctuate more in sympathy with demand and supply at both the farmer and the consumer level. The introduction of quotas also on industrial milk may have serious welfare implications in the sense that it will increase the price of industrial milk which is largely consumed by the poor. The value of the quota will also be capitalised in the value of the herd and new producers would not be better off.

## CONCLUSIONS

The ultimate policy depends upon the weights attached to criteria such as efficiency, equity, stability, security and growth.

The main progress in dealing with instability in agriculture may not be commodity programmes but a more stable monetary and fiscal policy. Instability and cash flow are probably the two most important current problems in South African agriculture.

Few support a completely laissez faire free market approach in agriculture, but the majority opinion is that the market should operate with the least possible intervention. The view of the CAST Report is that commodity programmes provide few benefits to the small farmer, while the large farmer does not need it.

Additional farm income can only come from tax payers, consumers or increased efficiency. In South Africa with its dualistic society the first two options may be less acceptable than in wealthy countries such as the E.E.C. The State can play a role in the provision of better information, better distributed information and research.

Although agricultural policy is controversial it is important that economists make their views known. According to Schultz, if economists merely accommodate governments, they serve only to rationalise what is being done and they lose their potential as educators.

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