CHAPTER 4

THE CAUSES AND CONSEQUENCES OF PRICING MECHANISMS

4.1 Lessons from experience

The theoretical and applied literature on the interrelationships between the cost of food and poverty levels is too large to be summarised here. However, three main sources provide a clearer picture of the policy options open to decision makers in the face of increased food prices. These are a summary of the consequences of deregulation and liberalisation in Southern Africa, based on research conducted at Michigan State University for USAID, a recent investigation of the food security effects of the deregulation of agriculture in South Africa, and the work of the International Food Policy Research Institution (IFPRI) in Washington, DC. Recently, IFPRI published a paper surveying the research done under its auspices over the past two decades, as well as the impact of this research (Farrar, 2000). In this section the lessons, concentrating on lessons from Southern Africa and on methods to achieve the social objectives of food subsidies without undue distortion of the economy or excessive economic and political costs, will be summarised.

4.1.1 Southern African lessons

There have been a number of publications that have reported on research on the food security effects of agricultural market deregulation in Southern Africa. Jayne *et al* (1995), for example, investigated the effects of grain market reform and food subsidy elimination in eastern and southern Africa on access to food for low-income consumers. They examine the findings from six household-level surveys in urban areas of Zimbabwe, Kenya, Zambia, and Mozambique between 1991 and 1994, focusing on shifts in maize consumption by urban households of different income groups in response to the introduction of new commodities that have been made more accessible to consumers through market reform. In a subsequent assessment of the lessons from this research, they (Jayne *et al* 1999) summarise the benefits of food market reform as follows:

- "First, food market liberalisation has generated more successes than generally recognised. Examples include the changes in grain retailing and milling, where consumers now have expanded options and have benefited from the lower margins of small-scale hammer mills; greater availability of maize grain in rural grain deficit areas due to strengthened inter-rural private grain trade; and the rise of regional trade patterns, which is playing a critical role in promoting cost effective food systems in cases where this is allowed.

- "Second, it is increasingly clear that the private sector's response to liberalization is sensitive to a broader range of government actions than commonly understood. For example, statements of key politicians in local newspapers critical of a market-oriented system are likely to be incorporated into the private sector's expectations of the payoffs and risks to future investment in the system. There is a need for a better understanding of the kinds of incentives that the private sector responds to in order to avoid actions that make 'lack of private sector response' a self-fulfilling prophecy.

- "Third, consumer vulnerability to price instability under liberalization has not been as severe as often portrayed. Private investment in grain distribution, processing, and cross-border trade as a result of the reforms have expanded consumers' options and ability to stabilize expenditures on maize meal. These market-oriented means of stabilizing consumer food expenditures weakens the rationale for expensive government price stabilization schemes.

- "Fourth, positive government actions to reduce market instability are needed and are beginning to work in selected cases. These actions include (a) improving the transport infrastructure; (b) promotion of regional trade; (c) market information systems that are expanded to include information on prices across borders, exchange rates, and trade flows; (d) improved communication infrastructure; (e) nurturing the development of market-oriented mechanisms (e.g., commodity exchanges) for handling price risk; and (f) alleviating the constraints on private access to foreign exchange. The potential benefits that these investments can bring underscore that there is no need to accept prevailing levels of food price instability as 'given'" Importantly, these types of investments may also reduce political risks associated with liberalized food markets, and thereby promote policy stability and consistency – key factors in promoting desirable private investment in the system.

More recently, Kherallah and Govindan (1999) analysed the welfare impacts of alternative sequencing scenarios of agricultural input and output market reforms in Malawi. Their results show that, contrary to the sequencing path adopted in the 1980s, Malawi's government should have liberalised the maize sector first, followed by the groundnut export sector, and once a supply response was generated, input subsidies could have been phased out. This sequence would have minimised the adjustment costs of smallholder farmers and would have reduced the negative impact on maize productivity and food security. Seshami (1998) carried out a similar investigation (using different techniques) in Zambia.

In another study based in Malawi, Chilowa (1998) argued that the donor-supported structural adjustment programmes have not impacted favourably on livelihoods, food security and the general welfare of the poor in Malawi. In his view, this resulted from the prescription of wrong policy packages and limited attention to poverty alleviation policies. Policies tended to concentrate on promoting market and price mechanisms, less on addressing production constraints and non-economic barriers to broad-based economic growth. The losers are mainly smallholder farmers who are net food buyers, low-income or wage earners in urban and semi-urban areas and smallholder farmers in remote areas. The winners are smallholder farmers who are net food sellers, private traders, institutional traders and the state marketing agency.

4.1.2 South African lessons

The report on the effects of deregulation on the poor in South Africa of the National Agricultural Marketing Council (ECI, 2002) argued that deregulation of South African agriculture was merely one part of the larger political, social and economic restructuring of the country, thus it was difficult to assess the food security effects of one change in policy. Yet the report argues that South Africa's experience with deregulation has been more positive than critics of liberalisation would expect.

Most of the evidence in favour of deregulation can be found in the direct measurement of the food security status of the rural poor of South Africa. Here the evidence is clear: everyone in South Africa has, on average, better access to better quality basic services now than 10 years ago. Thus, while it is possible to argue about shifts in relative food security, that debate will take place against the background of an increase in absolute food security.

The report argued that the only way to substantiate this finding was to test the hypothesis that net farm gate prices of agricultural commodities that were controlled would decline and would thereafter rise or fall in real terms according to movements in the world price and the exchange rate, leading to a decline in the total value of output, and a shift in the per capita consumption of these commodities with changes in the retail price. Further, that the total wage bill in agriculture would decrease unless farm workers and workers in related industries could induce farmers to substitute capital for labour, or to pay higher wages, and that the incomes of workers and consumers would depend on the retail price trends. In this regard, the investigation showed that:

- "The deregulation of the two major grain industries … resulted in **sustained lower real farm gate prices** for farmers. These prices have declined in a manner that suggests a link with the process of deregulation[23]. While there has been much talk of the deleterious effects of these lower prices on farmers, the latter have, on average, adapted … Although this has benefited farmers on average, there have also been losers among farmers, and often among the farm workers on these farms.

[23] The NAMC analysis was completed before the recent increases in farm gate prices reported above. However, as these prices have increased as a result of 'movements in the world price and the exchange rate', the hypothesis stands.

- "The real retail price of bread has increased, while that of maize meal decreased. Any evidence of higher consumer prices for grain products has to be ascribed to the lack of competitive conditions elsewhere along the supply chain, and not to factors under the control of the NAMC. However, the potentially negative impact on food security of the higher bread price was mitigated by **a shift in per capita consumption from bread to maize**, which is more readily available to the poorest people in South Africa. Thus, the existence of alternative means of providing food security is an important factor in the maintenance of food security. In this regard, South Africa is more fortunate than many other developing countries.

- "A strong case can … be made that **deregulation in the horticulture sector has had a positive effect on food security, although these benefits have been skewed towards the wealthy and the more skilled workers**.

- "The measurement of the food security effects of deregulation on prices in the livestock industry is made more difficult by the problem of accurately measuring the extent of meat consumption in the country. While the available evidence shows a **link between control and the declining level of per capita red meat consumption**, the case for a link between deregulation and declining consumption would have to wait for estimates of the size of the informal trade in meat.

- "The effect of these changes on consumers is difficult to estimate. There is little evidence that the link between farm gate prices and the retail prices of processed foods is any stronger than at the beginning of the 1990s … In time, as markets begin to function more efficiently in the processing segments of the supply chain, a stronger case could be built for a link between deregulation and more efficient retail prices.

- "There is also some anecdotal evidence of increased small business activities along the agricultural and food supply chain in the field crop, horticulture and livestock subsectors. It is, however, common cause that most of these small business initiatives have been exploited as an extension of existing farming and rural business operations, i.e. few entrepreneurs from previously disadvantaged groups have been able to gain access to these opportunities.

- "The effect of these changes on farm workers is also difficult to estimate. There can be little doubt that the relatively rapid increase in farm worker wages is partly due to the proven ability of farmers to improve their productivity during the process of deregulation. Nevertheless, there can also be little doubt that skilled workers have benefited more than unskilled workers. Some less skilled workers may actually be worse off as employment in those categories declines, and seasonal workers are substituted for permanent workers.

A field survey among poor rural people was also conducted as part of this investigation. The main conclusions of relevance to this study drawn from this empirical evidence was that:

- "The … main source of income of the head of household is a major determinant of the food purchasing power of the household. There were very strong links between increased income and increased food purchases. Types of food purchased at the household level varied by amount and source of income as well.

- "Food purchases varied with (source of) income of the household ... more stable … source(s) of income … resulted in more stable food purchases … Those households with more irregular sources of income also had less regular food purchases.

- "There was good access to food, both in quantity and variety, throughout the areas that were surveyed by the study team. This access is a fundamental aspect of food security.

- "The real price of purchasing the typical basket of food on a household level has decreased (after adjustment for inflation) over the past few years.

- "The cost of purchasing a scientifically determined, nutritionally balanced basket of food is greater than most of the households can afford (or do spend). Whether these baskets are actually being complemented by home produced food is difficult to ascertain.

- "As the majority of the food that was produced at the household level of those surveyed was for own consumption, changes in market prices have had little impact on their income stream. In those cases where home production was commercialised, it tended to be in products that had not been controlled by the marketing boards, so the deregulation would have had no impact on their income resulting from the sales.

- "Care must be taken in the coming future with respect to the households headed by pension earners as these are quite old and their passing will likely have a critical impact on the households' ability to purchase food, and hence affect their food security.

The implications from the household level survey are that deregulation of agricultural markets in South Africa has been beneficial for food security at the household level. Even though it was impossible to compare the findings of this survey against a baseline, the implications of dropping real prices for food and easy access to food are that deregulation has had a positive impact. The more serious issues to be addressed are the sources and levels of income for the households to be able to purchase the food, as these were ultimately the determining factors behind food security at the household level.

The final conclusion drawn from the analysis is, therefore, that deregulation has helped to make agriculture more efficient, but that it may have worsened the conditions of poor farm workers. There is, as expected, no real evidence that it has affected consumers adversely.

4.1.3 International experience

The research on food price management conducted by IFPRI initially concentrated on analyses of food subsidies and similar government interventions to achieve social purposes by manipulating the prices of staple foods. However, there was some ambivalence about the research because there was a realization that subsidies had adverse economic consequences in the long run, while in the real world they were important because country governments made them so. The challenge, therefore, was to design subsidy systems that would be effective in achieving their social goals and less damaging to long-term economic growth.

The early experience: South Asia

Food subsidy and distribution systems implemented during World War II were retained in some form in South Asian countries, and this provided a base of experience for earlier analyses of the effects of such programs:

- The earliest of these included a study on Kerala, in southern India. Here, the empirical evidence showed that the nutrition status of poor rural people had improved as a result of the programme through a combination of food subsidies and public services in health and education. However, little was said about the cost of the programme.

- The second programme that was studied, also in Kerala, consisted of the forced procurement of a portion of the local rice crop, restrictions on the movement of grain in and out of the state, imports of grain by the state government, and distribution of fixed quantities of grain at specified prices to poor rural and urban people alike. The investigator found that rationing had resulted in a proportionately greater increase in the amount of rice consumed by those with the lowest incomes, that rice procurement reduced income disparities among farmers, that the ration increased consumption among the poor more effectively than a direct income transfer, and that the gains to producers and consumers exceeded the direct cost of the subsidy. However, the study did not account for any efficiency losses that might have to be set off against distributional gains.

- The third study was of price subsidisation and distribution policies in Bangladesh, where the administrative systems were weaker than in India. The results showed that some two-thirds of the food distributed through the subsidized system was going to urban consumers, even though only 9 percent of the population was urban. However, diversion of rationed food to rural areas was politically infeasible, and the provision of equitable coverage in rural areas was expensive. Alternatives proposed included open market sales of food grains when prices increased and the subsidisation of fertilizer prices.

- The last of the earlier studies of subsidies in South Asia was in Sri Lanka, where, despite great poverty, literacy rates and life expectancy were high, and infant mortality low. A system of food distribution to the poor, in place for rice since World War II, was given at least partial credit for this result. In the early stages, the programme was largely self-financed by profits resulting from the difference between low import prices and higher domestic prices (accompanied by an overvalued exchange rate). However, when world prices rose, it became a crippling burden on the budget. While the ration system was an important source of income for the poor, the cost of the programme was questioned, to the extent that the government soon abandoned it in favour of a food stamp program.

Food stamps were provided to households with declared incomes below specified levels adjusted for family size. The programme was considerably cheaper than the broader food subsidy programme (1% of GDP compared to 3% of GDP). Yet the scheme was less successful in targeting the poor. The food stamps reached only about half of Sri Lanka's households, including most but not all households with per capita expenditures in the lowest quintile.

While the per capita consumption of 75% of the total population either grew or remained constant, the calorie consumption of the poorest quartile declined by 8%. Further, although the stamps allotted to young children had a higher value than those for adults, the additional food consumed by them was less than that of adult members until such time as the latter consumed 80% of their recommended calorie allowance, indicating that it was necessary to provide a relatively large transfer of resources to reach the young in poor households.

Food subsidies in Egypt

By the early 1980s the food subsidy system in Egypt was consuming 10 percent or more of current government expenditures, providing cheap rations to 90% of the population. There was a suspicion of waste, as bread was so cheap it was sometimes used as animal feed. Despite a commitment to food self-sufficiency, the country produced a quarter of its wheat and edible oil consumption. After extensive empirical analysis, the IFPRI research team reached the following conclusions (Alderman and von Braun 1986):

- "The introduction of food subsidies was not an isolated decision … It was rather the outcome of earlier policies to finance industrial growth through implicit transfers of income from producers to consumers. As self-sufficiency in food production declined, a natural transition took place from implicit to explicit subsidies, with the cost transferred from the producers to the government.

- "The budget cost of the subsidies could be measured directly, but an additional, concealed, social opportunity cost arose from the use of an exchange rate below … the free market rate. A further cost arose from the pre-emptive use of foreign exchange for food imports when foreign exchange was scarce or international food prices high. This action diverted resources that would otherwise have been used for the import of capital goods and raw material. By this mechanism, instabilities in the international food markets slowed domestic capacity utilization and overall growth.

- "The rising cost of subsidies contributed to the budget deficits, but was only one factor and could not be held solely responsible for the financial difficulties of the Egyptian government.

- The price distortions caused by food subsidies could not be blamed exclusively for the slow growth of Egyptian agriculture… There were also other factors not related to subsidies that hindered the growth of agriculture such as poor management of the water supply and other inputs, and an inefficient system of agricultural extension.

- "The subsidy system provided widespread benefits to consumers, both urban and rural. Analysis of income transfers through the ration component showed a clearly progressive effect on income distribution. Some elements of the system favoured particular groups more than others, however, and the subsidy of certain commodities with positive income elasticities provided larger income transfers to those with higher incomes.

- "The ration system proper, which provided fixed amounts of flour and/or bread, was reasonably efficient. But the de facto rationing of other subsidized foods through queuing at the cooperatives where they were distributed did have resource costs. These costs should be deducted from the value of the resource transfer.

- "In 1982 about six percent of the wheat supply was used as livestock feed, leading to wastage of the subsidized costs of processing and distributing that wheat for humans. The resulting output of livestock products partially offset this wastage.

- "The Egyptian economy faced difficult choices between current consumption and investment…

Food subsidies in Brazil

During this period, IFPRI also conducted studies in Zambia, Colombia, Mexico, and Brazil. Only the analysis of the wheat programme of Brazil is relevant here. Here the focus was on the attempt to raise producer prices in order to achieve self-sufficiency in wheat production rather than an improvement in nutrition. The results showed that the policy did not work, principally because the producer price was set below the border price valued at the shadow exchange rate, although above the border price at the (overvalued) official exchange rate, so that the higher price for wheat merely offset the producer price subsidy (Calegar and Schuh 1988, 9). When world wheat prices increased after 1972 and the exchange rate became undervalued, wheat consumption increased rapidly, fuelled by a consumer subsidy. Low-income consumers captured only about 19 percent of the value of the subsidy, and the poorer parts of the country received less than the more affluent regions. Yet it was politically difficult to remove the consumer subsidy, as bread formed an important part of the diet of the poor, and the benefit they received from the subsidy was an important source of income to them. Another problem was the negative effect that the price distortions had on producers of other food crops. The research concluded that the Brazil wheat subsidies were not effective.

Research on food subsidies in the Philippines

IFPRI was involved in the implementation of a pilot study on methods of targeting food studies to poor households with malnourished preschool children in the Philippines in the early 1980s. Fourteen villages in three impoverished regions were identified, and about a third of the households in half of these villages received a subsidized ration of rice and cooking oil, while the same proportion of households in the other villages formed a control group. Both groups were given nutrition education. The pilot study was conducted during a year when the price of rice increased, lowering consumption amongst the control group. However, the consumption levels of the assisted group remained constant.

The results showed that nutrition education only improved the access to food of preschool children and pregnant women when the access to food of the household as a whole improved. Measured by the number of poor households reached, the cost of transferring $1 to a household compared favourably with most other programmes for which costs were known, mainly because existing private outlets were used to distribute the food existing government staff and structures were used to monitor performance.

A synthesis of research on subsidies

IFPRI brought together its work on consumer food subsidies in the book, *Food Subsidies in Developing Countries: Costs, Benefits, and Policy Options*, edited by Per Pinstrup-Andersen and published in 1988. The following comments on the social and economic effects of consumer food subsidies were made:

- “Subsidies may be implicit, that is, paid indirectly, usually by producers who receive prices lower than a free market would provide; or they may be explicit, that is, paid from the budget; or they may be a combination of the two. Explicit subsidies are of two major types: distribution of foods at prices below the price that would be fixed by the market, or distribution of food stamps that are a form of redistribution of income without direct price effect. Price reductions may be for the total quantity of one or more commodities, or for specified amounts, usually called rations.

- “Price reductions caused by subsidies may be large, but may vary depending on world prices and other factors. Provided that they have access to the subsidized price, reductions in the price of food are relatively more important to the poor, because of the weight of food in their expenditure pattern.

- “The effect on household incomes is positive for those with access to the subsidies, and larger in absolute levels for better-off households. The real effect on incomes is reduced by the natural adjustment of wage levels to compensate for food costs. Incomes foregone because of the financing of the subsidy also need to be considered, but there is no means of making accurate estimates of what these might be. It is usually impossible to identify a specific source of funding for food subsidies within overall government revenue, much less to speculate about the use of and return to marginal resource savings.

- “Food subsidy programmes are commonly intended to improve household food security. They may provide fixed amounts of food, with fluctuating and uncontrolled budget costs, or fixed sums to be used for purchase of food. The latter approach places the burden of price variations on the household, and this remains true for short-term variations even if there is periodic adjustment to take account of inflation. It is very difficult to achieve universal household food security and targeted income transfers in the same program.

- “Income transfers linked to food should increase food consumption among the target population and the research bears this out. The increases in overall consumption are usually not as great as the increases in consumption of the product subsidized, because substitution effects among the poor are larger than expected. Malnourished individuals should also consume more food, but little is known about what actually happens within households, and there is some evidence that adult household members get preference over malnourished children.

- “Targeting is important, because it is a means of reducing costs while concentrating benefits. Few existing programs are effectively targeted on the poor, and many are biased toward urban areas. On the other hand, trying to fine tune targeting beyond a certain point usually produces inefficiency and excessive administrative costs.

- “The degree to which nutrition improves will depend on the extent to which lack of food, rather than sanitation, health, or other factors cause poor nutrition.

- “Reduced food prices can contribute to the formation of human capital by making resources available for health, education, and other services. Studies from non-IFPRI sources suggest that improved nutrition has positive effects on labour productivity. If programs can be designed to achieve such effects, food subsidies may contribute to economic growth rather than detract from it.

- “Fiscal costs of food subsidies rose sharply in the early 1970s, as governments attempted to protect households from the impact of soaring world food prices. Expenditures decreased thereafter because of lower international food prices and government policy decisions. Even so, untargeted, explicit food subsidies for consumers remain expensive. Efforts to save on the cost of subsidies have often harmed the welfare of the poor. Food aid can significantly reduce the cost of food subsidies to the national government

- “The effect of subsidies on the agricultural sector shows no consistent pattern. Explicit consumer subsidies can lead to increased demand for food and, hence, a gain for producers. Implicit consumer subsidies, on the other hand, usually involve low producer prices. It is unclear from existing evidence whether the fiscal cost of subsidies generally leads to reduced investment in the productive side of the agricultural sector.

- **“While it is often argued that subsidies help control inflation by keeping food prices low, deficit financing of explicit subsidies will contribute to continuing inflationary pressures on the general price level which may well overtake the one-time reduction in prices of subsidized commodities**.

- “The impact of food subsidies on trade and foreign exchange depends on the nature of the subsidy program and other existing economic policies. Inflation may contribute to increased demand for foreign goods and subsidy programs themselves can lead to large imports, as in the case of Egypt.

- “Implicit subsidies, by reducing incentives to produce, may depress exports through lower availability of goods to export.

- “Food subsidies can influence employment and economic growth … through price distortions and reduced investment in agricultural and other sectors, through improved human capital, through the effect on wages and inflation, or through the availability of foreign exchange for import of capital goods and raw materials. The net effect on output may be positive or negative … there is no evidence that expenditure on food subsidies impedes or fosters output and growth. The answer hinges on other distortions and accompanying policies.

In the final chapter, the author (Pinstrup-Andersen, 1988) emphasised that subsidies were rarely if ever the solution to long-term problems; on the contrary, they usually made such problems worse. “**Their proper role,**” he argues, “**is to compensate for the effects of inappropriate development strategies, institutional changes, and policy measures”. The need for subsidies could be reduced by adopting appropriate strategies, institutional changes, and policies.**

4.2 Conclusions

The lessons from the research on the policy options open to decision makers in the face of increased food prices that has been reviewed here can be summarised as follows:

- There is some justification for targeted food subsidy programmes as a means of providing short-term relief, and the empirical evidence shows that they can succeed in addressing the needs of the poorest.

- However, these programmes face the problem that targeted programmes, while cheaper, require more expertise and better bureaucratic systems to implement. On the other hand, untargeted programmes lead to higher leakage from the system even though they are administratively less complex, and thus less expensive, to implement.

- The food subsidy programmes of the 1970s and the 1980s were introduced within a framework of distorted foreign exchange markets, high taxes on agricultural exports, dirigiste import replacement schemes, etc. In other words, they were to at least partly an attempt to compensate for policy deficiencies in other areas of the economy.

- The experience with structural adjustment programmes in Southern Africa shows that when the market responds it generates unexpected solutions and successes that in their turn make the market work more efficiently.
- However, the market does not always respond to these challenges spontaneously, and concerted effort is required by the private sector and by the public sector to lower transactions costs, promote regional trade, provide market information systems that are expanded to include information on prices across borders, exchange rates, and trade flows.

- The private sector's response to liberalization is sensitive to a broader range of government actions than commonly understood. There is a need for a better understanding of the kinds of incentives that the private sector responds to in order to avoid actions that make 'lack of private sector response' a self-fulfilling prophecy

- The sequence in which domestic and external trade is liberalized matters to the welfare of the poor. As these markets have already been liberalized in South Africa, however, the real lesson lies in the steps that should be taken to alleviate these effects. The evidence generally is that the 'losers' are mainly smallholder farmers who are net food buyers, low-income or wage earners in urban and semi-urban areas, smallholder farmers in remote areas and unskilled farm workers. Policies should be put in place to address production constraints, barriers to market access and non-economic barriers to broad-based economic growth.

- Food security is less of an issue for poor households adversely affected by an increase in retail prices of a staple food commodity when they have access to alternative food staples. In South Africa, for example, poor consumers can readily shift from bread to maize or from maize to bread when the relative retail price shifts. This also means, however, that a subsidy targeted at one of these commodities will interfere with market signals that encourage production of that commodity.

- In the South African circumstances there is evidence that shows that the real price of purchasing the typical basket of food on a household level has decreased over the past few years. Hence the effect of the recent increases, while more visible because it reverses this trend, is not as severe as it would be under different circumstances.

This (partial) review of the literature has identified a wide range of subsidy instruments commonly used for the explicit purpose of controlling the prices that poor people pay for specific food items, and often to control the rate of inflation of food prices. These instruments can generally be divided into implicit and explicit subsidies, and countries generally used both types simultaneously. These subsidies include:

- Food stamps, similar to those long used in the USA;

- Forced procurement, a policy similar to that used in the USSR in the period before the forced collectivisation of agriculture;

- Restrictions on inter-state (provincial) movement of grain, an instrument that was also used in Zimbabwe and Zambia;

- The creation of a monopoly importer, often the State or an agent of the State. In South Africa, most of the Control Boards had monopoly power over imports;

- The creation of (often parallel) distribution systems whose purpose is to supply targeted foodstuffs to the poor at a lower than market price. In its extreme form, this has resulted in special shops for the poor;

- Buffer stock schemes, whereby the state or an agency of the state buys food commodities in time of plenty and sells in times of shortage. The literature on the disruptive effects that these schemes have on producers and consumers is large.

- Conventional food subsidies, such as those used in Egypt and Brazil. In South Africa, a bread price subsidy was part of the Wheat Control Scheme until it was phased out in 1991.

There are three important aspects of the context within which these subsidies were implemented:

- There was a strong belief during the 1970s that world food prices, especially for staples, were increasing, and would continue to increase. It was clear that the poor, except for those who were self-sufficient in food production, would be adversely affected, as this increase would be transferred into the domestic market. Measures to protect the poor from the impact of these price increases were, therefore, justified on political and humanitarian grounds. Later, an economic argument was added, namely that subsidies targeted at the poorest would be beneficial for growth (IFPRI, 1987). However, commodity prices generally, and the prices of staple foods in particular have declined in real terms over the ensuing decades. As will be seen below, the recent transmission of higher food commodity prices into the South African market is a special case.

- There was consensus among analysts and policy makers that the most effective way to increase food production in developing countries was to provide farmers with incentives through higher prices, and with improved technology to lower production costs, and hence to increase their profit margins. However, while such policies would benefit farmers, the landless rural poor and the urban poor would face higher food prices. Interventions in the market to protect these groups were, therefore, justified. Later experience has, however, shown that these groups are only penalised to the extent that higher farm gate prices are transmitted into higher consumer prices.

- The 1970s were characterized by a global fixed exchange rate regime. Higher world prices for staple foods were translated directly into high domestic prices in developing countries that did not have farm price support programmes such as those followed by the industrialised countries. Further, the main problem with agricultural development was the slow pace of growth in food supplies (Mellor and Johnston, 1984).

The analysis in Chapter 2 shows, however, that the South African circumstances differ from this context. **First,** the evidence presented in this report is that the world price of maize and many other basic commodities has increased in the past few months, and is expected to continue increasing. The analysis has also shown that in a liberalized market, these higher international prices are transferred into the domestic market almost immediately. Thus, there may be some justification for intervention by the authorities. **Second,** however, the lack of competition further down the supply chain has had a bigger effect on the prices that poor people pay for their basic needs than has the supply of farm commodities. **Third,** we live in a world characterised by market-determined exchange rates, and the exchange rate has had a bigger and more immediate impact on the South African domestic price of maize than has the world price.

The conclusion is, therefore, clear, namely that **the recent increase in the farm gate price of basic food commodities has come about as a result of a unique combination of five factors**. These are (a) an increasing world price for these commodities, (b) a lack of competition in the supply chain beyond the farm gate, especially at the retail level, (c) a fast and severe depreciation in the value of the currency, (d) a shortage of maize in SADC, and (e) a climate of uncertainty, created specifically by the unfortunate circumstances surrounding the land reform programme and the elections in Zimbabwe, and more generally by the instability in parts of Central and Southern Africa.

While South African farmers have succeeded in increasing total output as a result of deregulation, the production of specific commodities is strongly dependent on the weather. The expectation of a relatively poor maize harvest in South and Southern Africa, coupled with uncertainty caused by the collapse of reason in Zimbabwe, has resulted in the maize price increasing to a level that is close to the import parity price, which has increased because of the collapse in the exchange rate and the higher world price. This has been translated into higher consumer prices for food given the lack of effective competition higher up the supply chain. The implication for decision makers is clear, namely that each of these factors has to be investigated in their own right, and in combination.

4.3 Recommendations

Efficient markets: SAFEX

Under 'normal' circumstances, the combination of increasing world food prices, a poor domestic crop and a collapse in the exchange rate is a rarity. In the case of white maize specifically, however, there is a connection between these factors, specifically because Southern Africa is the only region in the world where large quantities of superior quality (white) maize is grown for human consumption[24]. In an efficiently functioning market, the rapid increase in the South African price for maize would result in one of two market reactions, given that the South African price influences the world price of white maize. **First,** imports of high quality white maize should increase. As this is not available elsewhere, imports of lower quality white maize should increase. However, this is not possible at present, for technical reasons that are summarised in Appendixes 10 and 11. **Second,** in the longer term, i.e. if the shortage of white maize in Southern Africa persists, the increased domestic price, transmitted to the rest of the world, should encourage producers

[24] White maize is grown in Mexico for the manufacturing of *tortilla*, but this does not change the main argument.

in other parts of the world to grow white maize specifically for the South African market. Again, this is not possible for the reasons summarised in Appendixes 11 and 12. However, it appears that a market solution to this problem does exist.

Recommendation 1

For this reason, we recommend that the authorities, in collaboration with the Agricultural Markets Division of SAFEX, should investigate the desirability of introducing a maize futures contract that makes provision for "non African Origin". The desirability of restricting this to farmers in the USA, and of allowing lower quality maize should be included as part of this investigation.

Efficient markets: further down the chain

Our analysis has shown that the poor in South Africa have been adversely affected over the past few months by higher retail food prices, and that the trends in these prices are largely divorced from prices at the farm gate, especially in the case of maize and other staples. Intervention by the state in primary agriculture in South Africa during the 1930s was initiated because of the (perceived) lack of bargaining power of farmers. Deregulation was introduced largely because the farmer support system had become too expensive, and because the benefits were skewly distributed. This does not, however, mean that farmers have automatically gained sufficient bargaining power, as has been proven over the past few months. There is, in fact, an argument that the control mechanisms that were put in place in the 1930s increased the bargaining power of processors, distributors and traders.

Recommendation 2

For this reason, we recommend that the relevant authorities initiate full investigations into the degree of competitiveness in the supply chain for the strategically important commodities that constitute the basic food needs of the poor in South Africa, under the auspices of the Competition Act. Such investigations should include an identification of the barriers to access to markets, including inadequate infrastructure, inappropriate pricing strategies for modes of transport, a lack of communications facilities, etc.

Efficient markets: the farm level

There is little evidence that small farmers have benefited from the new trading environment in agriculture, while there is strong evidence that the efficiency and the fairness of the agricultural sector would be enhanced by a successful land reform and small farmer support programme. As a result, most small farmers in South Africa are still poor, are net food buyers, and are as adversely affected by higher consumer prices for food, as are the landless rural and urban poor.

Recommendation 3

For this reason, we recommend that greater consideration be given to successful land reform and farmer support programmes that result in the creation of successful livelihoods for the millions of current (and potential) farmers from disadvantaged communities who deserve these opportunities. While the plight of the rural poor in South Africa is better now than a decade ago, the agricultural sector has not been allowed to play the important role that it should in the fight against rural poverty. Government needs to reverse the decay in agricultural infrastructure, and refocus efforts in support of poor and disadvantaged farmers.

Alleviating the plight of the poor

It is clear that poor people living in the rural, the urban and the peri-urban areas of South Africa have been most affected by the increase in the farm gate prices of staple foods. Our analysis shows that the consumer prices of these products will not decline in nominal terms in the short to medium term despite the strengthening of the rand and in recent months. Hence, there is an argument for measures to alleviate the plight of the poor.

While we understand the need for remedial action, however, it is clear that South Africa already has mechanisms in place to combat poverty. These include the Public Works Programme, the Primary School Nutrition Programme, and the proposed Comprehensive System of Social Security. Further, experience has shown that specific food subsidies have unintended consequences and, like all subsidy programmes, are difficult to terminate once initiated.

Recommendation 4

For this reason, we recommend that the Government take an in-principle decision not to meet short-term emergencies such as the current rise in consumer prices for basic foods with short-term reactions. The solution rather lies in sound risk management strategies, and properly implemented poverty alleviation policies.

Calculating the CPI

The analysis has shown that considerable effort has been expended in ensuring that the calculation of the CPIF accords with recognised international practices. However, it is clear that the current practice could lead to a misrepresentation of the actual rate of food inflation. It is not clear whether the current practice over- or understates the real rate of inflation in the prices of food products.

Recommendation 5

For this reason, we recommend that StatsSA should give serious consideration to finding a more satisfactory definition of rural areas; that provision should be made for the sale of food products through informal sector outlets in urban and rural areas; and that consideration should be given to including the price trends for food consumption away from the home.