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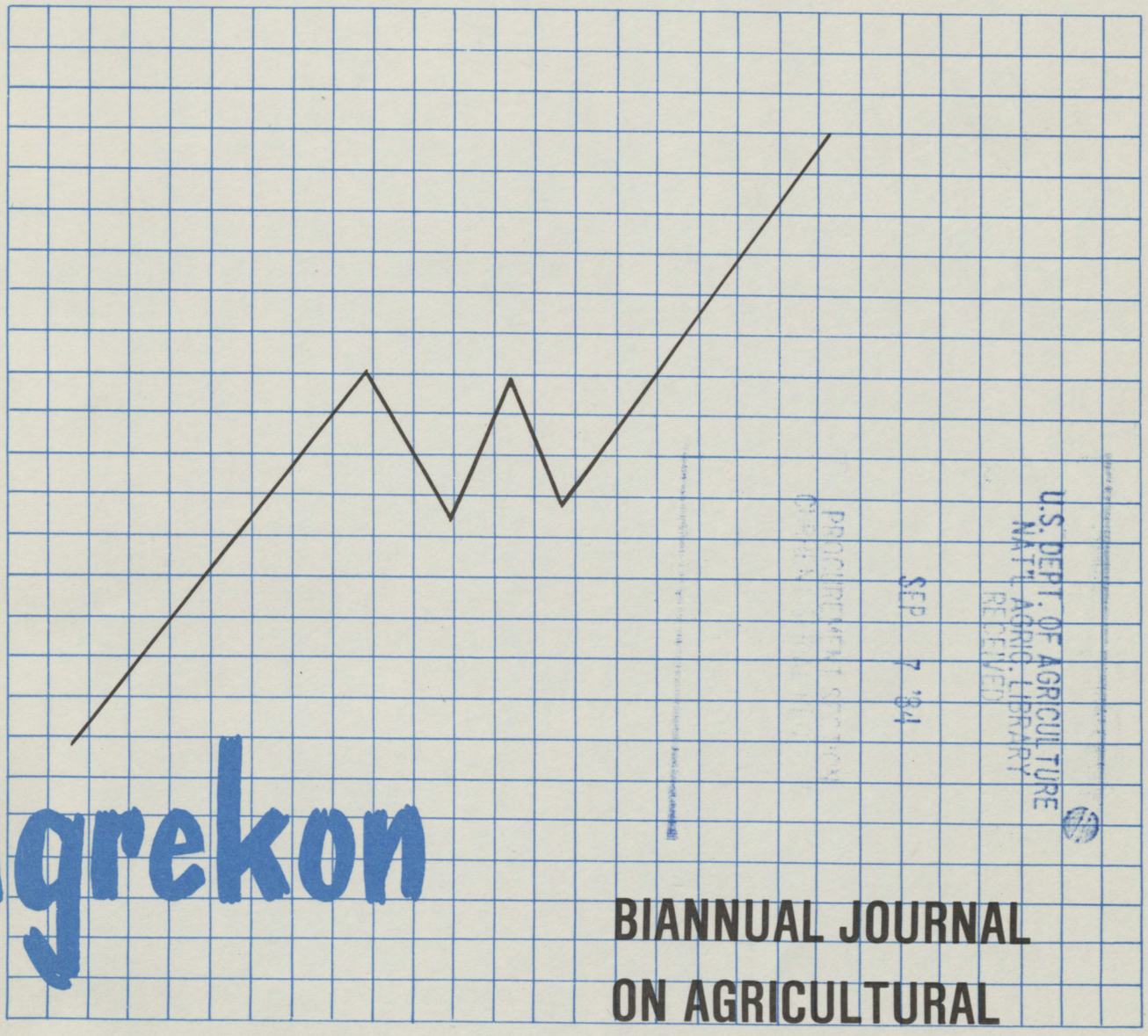

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STRUCTURING AGRICULTURE WITHIN A FREE MARKET ORIENTED ECONOMY IN THE WESTERN WORLD*

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The challenges are great in a world of ever increasing political and economic uncertainty. Food and other agricultural products have taken on new measures of importance in domestic and world scenes. There are numerous international changes which are tending to make nations more interdependent, particularly in their decisions relating to agriculture. These changes include: *monetary mechanisms and links; energy links* - especially petroleum; *more rapid and more detailed communications* (including surveillance techniques); and *military,* including changes in the relative military strength of individual countries and changes in military alignments.

I will first outline and define some basic concepts such as free markets, free trade and production and marketing intervention. Next I shall look briefly at the experience and the pros and cons of various free market and controlled agricultural economies over time in the western world. This will be basically a status report on where we have been and where we are now. Finally, we will risk the perils of prediction and look to the future with reference to the types of international trade structures which are likely to develop. I will make the point that these trade developments will increasingly drive or direct the internal production and marketing programs of individual countries in the western world.

I represent only my own point of view - not that of the U.S. goverment, a university, a specific commodity or a particular agricultural organization. I am drawing, however, on my years as an agricultural economist, educator, government official and private sector executive. I should also tell you that my own personal bias is in the direction of "free agriculture," both in domestic production and marketing and in the international trade arena. It should also be pointed out that there are no "right" or "wrong" points of view regarding free versus controlled agriculture except from a philosophical point of view. If your philosophical stand is that governmental boards, agencies and officials can make better decisions that individual farmers about what to grow, how much to grow, and when and how to market; that a free market economy will produce results that are somehow unfair to consumers; or that generally agriculture is too important to be left to agriculturalists, then not many things I can say will persuade you in the direction of freer agriculture.

At any particular point in time, many things are fixed: production technology; economic organization of production and marketing within particular countries; economic organization of trade relationships between individual countries and between groups of trading partners; the degree of political stability within and between nations; etc. Each of these can, and does, change over time, however. Some, such as production technology, change at a fairly predictable rate. Others, such as the economic organization of production and marketing within a country, are subject to internal political forces. Still others, such as international trade relationships, are influenced largely by the actions of other nations.

"Free" is a relative concept when used to describe systems of producing and marketing agricultural products. We must ask, "Free relative to wheat?" Another country? The textbook definition? There are no examples of *totally* free production and marketing systems for agricultural products. A generally accepted definition of free marketing and production is a system in which individual producers have the right and ability to determine the products they will produce, the quantities they will produce, and when and to whom the products will be sold. Prices are determined solely by supply and demand. Similarly, free trade is the exchange of goods with no trade barriers or restrictions such as tariffs or import quotas.

Throughout history agriculture has been the first industry of any nation. It has also (until the twentieth century, and then, only in the more developed nations of this world) been the predominant industry in terms of number of people employed. Because of the basic fact that people must eat, agriculture has always been treated differently than other industries in the total economic scheme of things. Any nation is justified in taking steps to see that it has adequate food and fibre for its population. Just what is precisely the "best way" to accomplish this is the subject of this paper.

In addition to the fact that food and fibre are necessities, several physical and biological

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characteristics of agricultural production and marketing lend reason for concern (and differences of opinion) about how agricultural production and marketing systems should be organized. The major characteristics are as follows:

(1) *Variation in production due to weather and biological factors.* Science has made limited advances in dealing with production variation due to weather. Irrigation in some areas for some crops has reduced variability in yields due to rainfall and has made it possible to grow crops in areas where it was not possible before. Insecticides, herbicides and chemical fertilizers have both increased the absolute level of production and have reduced output variability. Nevertheless, large areas of the world still are subject to enough variability in rainfall that a surplus or shortage of it can mean starvation. Even with advances in biological control, all producing areas are subject to unexpected catastrophes. The corn blight which affected the U.S. crop in 1970 should serve as a reminder that these types of things can happen anywhere at any time. Thus, a need is perceived by many to have government involved in agriculture to (a) ensure that enough is produced and (b) it is not all consumed at once - that enough is saved in case of adverse weather or biological conditions.

(2) *Inelasticity of demand for agricultural products.* While there is variation from one commodity to another, food in total, (and most commodities individually) has a fairly inelastic demand. This means essentially that even fairly large changes in price will result in fairly small change in quantities consumed. Similarly, even modest increases in production can lead to substantial decreases in prices which producers receive. This gives rise, particularly in the western nations with highly developed agricultural production capability, to concern about "over production" and the resulting impact on producer incomes. This is another reason why government policy makers become concerned about agriculture.

(3) *Perishability of agricultural products.* Agricultural products differ from most other items in that they are all perishable over some period of time, and some are perishable within a matter of hours or days. Obviously there must be an adequate marketing structure to deal with this. The issue becomes one of the role of government versus the private sector.

(4) *Seasonal production with continuous demand.* Because of climatic conditions, nearly all crops and many livestock products are produced seasonally, while consumption is on a nearly steady basis year-round. As with the issue of perishability, this gives rise to the need for marketing mechanisms to ensure (a) that products do not deteriorate and (b) they are available, if not on a continuous basis, then for as long a period as possible. Once again, the need for these mechanisms is clear: the issue is who is going to provide them.

The foregoing list (plus some others we could add) regarding the physical and biological nature of agricultural production and marketing can be viewed as "facts." Their existence is not a matter of philosophy or conjecture - they do exist. We may (and do) have differing philosophies about how they should be dealt with.

A second set of factors which is important in guiding the conduct of the agricultural system relates to the overall policy goals and objectives which a nation (or group of nations) has for its agriculture. For example, the aims of the Common Agricultural Policy (CAP) of the European Economic Community (EEC) as stated in the Treaty of Rome are to (1) increase farm productivity; (2) ensure a fair standard of living for farmers; (3) stabilize agricultural markets; (4) guarantee regular supplies; and (5) ensure reasonable food prices. (3, pp. 2-3) If we were to review the stated goals of every nation, we would find statements quite similar to these. The emphasis may change from one nation to another, but the basic substance remains the same.

Thus far, we have listed two sets of factors which impact on how the agricultural system should and can be organized: (1) The physical and biological factors, and (2) the public policy goals put forth by the nation or groups of nations in question. The third set of factors involves the prevailing philosophies, attitudes and values with respect to the appropriate role of government in directing domestic and international agricultural production and marketing. It is this set of factors that differentiates the agricultural systems of nations at any particular point in time, and determines the course of agriculture in an individual country over a period of time.

All nations currently have government involvement in agriculture to some degree. In centrally planned economies, particularly in the Eastern Bloc countries, the involvement is so total as to constitute almost absolute control. Every aspect of agriculture, from determination of commodities to be produced, to timing and methods of production, to prices received by producers and paid by consumers, to amounts imported and exported, is centrally determined in one manner or another. At the other extreme is the current situation in the United States, where there is less direct government involvement in agriculture than there has been in the past 50 years and where there is probably less than there is in any other major producing nation in the world. (Even in the U.S., however, there is still substantial government intervention in the production and marketing of a few individual commodities, and because of the currently depressed agricultural economy, there are increasing calls for government to become more involved). The bulk of Western nations lie somewhere in between the extremes of the Eastern Bloc nations and the United States with regard to government involvement.

The techniques used by governments to intervene in agriculture (domestically and internationally) can be grouped in several categories - although programs for particular commodities

may involve combinations of two or more of the techniques. (1, pp. 11-13; 2. pp. 2-5)

(1) *Supply control and price supports.* There are many variations of each of these. For example, there may be either mandatory or voluntary limits on production. Price supports may be mandated at specified levels or may be made contingent upon compliance with voluntary supply control schemes. Supply control and price support programs of some form have been the predominant mechanisms used in the U.S. over the past 50 years for products such as corn and other feed grains, wheat, rice, cotton, peanuts and tobacco. They have also been used in the CAP of the EEC.

(2) *Price assistance without supply control.* This method is used in the United States for manufactured dairy products and wool and is also a feature of some agricultural programs in other western economies.

(3) *Limitations on imports.* The U.S. has used this method most extensively on sugar, but is also a feature of its efforts to assist the domestic dairy and beef industries. It is, of course, a major component of the CAP and can be found in the Japanese policies regarding imports of products such as processed red meat and poultry.

(4) *Marketing orders.* Used in the U.S. chiefly for products such as citrus, dairy and specialty fruit and vegetable crops, these devices are used to exert market-wide control through cooperation between the Federal government and producers of the regulated commodity. Most marketing orders are justified primarily on the basis of evening out the flow of products to market and regulating the amounts used in fresh versus processed form. They are not used appreciably to affect export markets.

(5) *Marketing boards.* Boards are not legalized in the U.S., but are used extensively in other countries, including Australia, Canada, and here in South Africa. Like market orders, they are means of establishing compulsory industry-wide or market-wide control over market activities. They can and do affect both domestic and export activities. The Australian Wheat Board markets all Australian-produced wheat. The South African Maize Board is the only buyer of corn in the country and is responsible for all export marketing. The Canadian Wheat Board has authority for all export marketing, pools sales receipts, and can allocate marketing quotas to individual farmers.

(6) *Bilateral trade agreements.* These are long-term contracts between two traders and/or governments to sell and purchase specific commodities. Primary emphasis is normally placed on quantities of the product traded, with such matters as price floors or ceilings, information exchange, etc., receiving secondary emphasis. An example of a bilateral agreement is the grain agreement between the U.S. and the U.S.S.R. It specifies that the U.S.S.R. will purchase at least six million tons of grain annually from the U.S., that the U.S. stands ready to supply up to eight million tons, and that the purchase of additonal grain may be negotiated depending on the supply situation in the U.S.

(7) *Multilateral agreements.* These are agreements among several governments regarding intrenational terms of trade. Interest in multilateral agreements is highest during relatively plentiful supplies of the commodities in question. Generally, multilateral commodity agreements have one or more of three basic objectives viz. (a) stabilizing price; (b) raising price; and/or (c) assuring supplies. To accomplish these objectives, three provisions are usually part of an agreement; (a) provision for a price range within which transactions may occur; (b) an international reserve providing for the holding and release of buffer stocks; and (c) provision for control of production in accordance with market needs and price objectives.

Objective analysis of various government intervention schemes is, at least, very difficult. Even when good analysis is accomplished, the results are generally interpreted to suit the biases of the interpreter. Those not philosophically inclined toward government programs tend to do the reverse.

An additional difficulty lies in interpreting program results from both an economic and a broader social perspective. Suppose, for example, that a commodity price support program has as its primary objective the raising of producer income.

Suppose further that it demonstrably does so, but at the same time consumers pay more than they would have in a free market situation, consumption of the commodity is less than it otherwise would have been and resources diverted from production of this commodity to another commodity less desirable from a consumer standpoint. Is the program a good one? "Yes!" say those who designed it, those who administer it and those producers who benefit directly from it. "No!" say the consumers who have less of the product at a higher price, politicians who would rather have seen the support money spent for social programs or defense, and (probably) other agricultural producers who do not benefit directly. Who is correct? We are again back to individual (and collective) value system where there is no absolute right or wrong.

Let me, however, attempt to make a rapid assessment of the major commodity programs (collectively) over the past approximately 50 years in the U.S. and the last 20 years or so in the EEC.

Paarlberg (5, pp. 23-34) has summarized the seven major arguments put forward by advocates of large commodity programs as justification for keeping them as follows: (1) The programs saved farmers from disaster when they were implemented in 1932-33. (2) Farmers are at a continuous economic disadvantage (because of the physical and biological factors discussed earlier). (3) Agriculture has a chronic tendency to overproduce. (4) Government programs are needed to increase agricultural stability. (5) The need for market power. (6) "The people" want these programs. (7) Ending the programs would be disasterous. Of all

these arguements, I agree with Paarlberg that the stability case is the strongest. Numerous empirical studies have shown conclusively that there has been less fluctuation in both production and price than would have been the case without the programs. Even this has been a mixed blessing, however. Assured prices reduce risk to producers and insulate them to a certain extent from the real supply and demand factors both domestically and in world markets. As a result, burdensome surpluses have developed periodically.

Strong arguments can be put forth against continuation of these programs. (5, pp. 34-41)

(1) *The programs have priced the U.S. out of world market.* Until the 1970's, we became essentially the residual supplier in world markets. This occurred because we held our export prices above world levels. Other suppliers could underprice the U.S. and buyers would naturally buy from those suppliers before they bought from the U.S. There were four basic results of these policies:

(a) the U.S. carried the reserve stock of food and fibre for the world;

(b) the U.S. carried the supply-adjustment role for the world food system;

(c) the U.S. helped stabilize food prices in the world at no cost to other countries; and

(d) most of the growth in world markets was granted to other agricultural exporters.

(2) *The programs are inequitable.* Clearly the programs have favored large producers over small producers and have channeled the bulk of government assistance to agriculture to the producers of a relatively small number of commodities.

(3) *The largest gains accrue to landowners.* Several empirical studies have shown that program benefits are rapidly capitalized into land values and are thus a windfall gain to those who own land when the programs are started. These higher land values also constitute a higher cost of production to successive owners of the land. In my judgement, these inequities have also speeded up the departure of small farmers from farming and, thus, hastened the concentration of farms into fewer but larger units.

(4) *The programs involve high government cost.* Many argue that the costs are justified, of course, and may ask, "High relative to what?" It cannot be disputed, however, that large government outlays are required.

As a result of recognition of these negative aspects of the commodity programs, U.S. agricultural policy has been shifted significantly during the past 10-15 years away from government interference and control to greater reliance on natural adjustments to international demand and supply conditions.

During the time the U.S. has been shifting away from government interference and control, the EEC has "increasingly insulated its agricultural sector from the vagaries of the international market while at the same time using that market to transfer the costs of its domestic policies to producers and consumers of other nations, including the United States." (3, p. 2) Several results of these measures may be observed.

One cannot quarrel with the aims of the CAP as mentioned earlier in this presentation (increasing farm productivity, ensuring a fair standard of living for farmers, stabilizing agricultural markets, guaranteeing regular supplies and ensuring reasonable food prices). Farm productivity has increased and farmers have faired well. In the process of doing this however, there have been some negative results within the EEC and also some far reaching international impacts which are causing distortion and threatening trade relationships between the EEC and other countries, (particularly the U.S.) and among other non-EEC trading partners.

The *first* negative result has been the stifling of internal demand for food products, because domestic farm product prices are supported at levels substantially higher than international markets. Numerous studies have substantiated the very large transfers of income from consumers to producers in the EEC and indicate an increasing real cost to consumers over time. "The percent of income spent on food products in the EEC ranged from a low of 22 percent in the Netherlands to a high of 45 percent in Ireland in 1978, with the other EEC countries in the midtwenties and thirties, while the comparable figure for the U.S. as 16 percent. Despite a per capita GNP nearly that of the U.S. and a higher percent of income spent for food, beverages and tobacco, EEC consumers enjoy less meat, milk and eggs and have a higher per capita intake of cereals, potatoes, vegetables, and fruits than do U.S. consumers. For example, in 1978, EEC per capita consumption of meat was 75 percent, dairy products 93 percent, eggs 85 percent, cereal 130 percent and potatoes 227 percent of that in the U.S." (3, p. 6)

A *second* negative result of EEC policies is that the U.S. and other traditional exporters are being harmed. EEC policies of high price supports and no production controls led to increases in production of about 25 percent in the 13 year period from 1967-1980. As mentioned earlier, consumer demand has been reduced and, as a result, large surpluses of many commodities have been disposed of at subsidized prices on world markets. (3, p. 8)

The *third* negative result of EEC policies is their contribution to instability in world markets. "By maintaining a rigid internal price structure and utilizing export subsidies under CAP, thus insulating the EEC agricultural sector from the international market, the EEC forces other countries to bear the brunt of the international market instability. For example, the EEC threshhold price for wheat has increased steadily, while the world price has fluctuated considerably. With the exception of the 1973/74 and 1974/75 marketing years, the EEC price has markedly exceeded the world price .... Neither is the EEC

bearing its share of the burden of the current world surpluses and low world prices. It is not only EEC price supports and export subsidies which lend instability to the world cereal markets but also the lack of adequate stocks. EEC cereal stocks are only about 10 percent of annual production compared with about 30 percent in the United States." (3, p. 11)

In summarizing the overall impact of EEC agricultural policies, it is clear that "all-out production and stifled demand in the EEC in response to high support prices have created a situation in which the costs of the CAP are bearing heavily on the world market. Increasingly, the EEC policies seek to shift the cost of domestic programs to other trading countries through import taxes and other duties and levies, as well as through unfairly subsidized competition .... Most of the conflicts between the U.S. and EEC stem from policies predicated on two widely different philosophic views of the role of government and of the agricultural sector in the socio-economy. The U.S. has held *efficiency* of paramount importance, with *equity* considerations being worked out within the efficiency context. Conversely, the EEC has put equity considerations first, both between member nations and among agricultural producers, and the protectionist measures necessary to accomplish these objectives have been developed at the expense of efficiency. This protectionism tends to penalize more competitive producers both inside and outside the EEC and to hinder the development of efficient agricultural production both within and outside the community. As damaging as these practices are to U.S. farm incomes and the total economy, developing countries, as they are denied markets for their products, are hurt even more." (3, pp. 15-16).

With the greater economic interdependence of the world's nations, the debate over (and the impact of) freer trade versus protectionism will intensify. The issue is centuries old, but many fairly recent changes have added a new dimension to it.

We are all familiar with the theoretical arguments in favor of free trade. Nations produce those products in which they have the greatest comparative advantage. There is greater efficiency of resource use, and producers and consumers alike in all nations benefit. It is also possible to list real world examples demonstrating the benefits of trade liberalization. The U.S. textile industry has a long history of protectionism to protect jobs. "Prior to enactment of this Trade Act of 1963, the U.S. textile industry was an outmoded, antiquated collection of factories. Immediately after the Act became effective and opened the market to imports, investment in new plant and equipment spurted and per unit product costs declines. Textile workers, rather than being tied to a historically low wage industry, over time shifted to higher valued employment." (4, p. 9)

Several factors are different today than in the past as we view the world trade environment (4, pp. 14-16): (1) The greater interdependency among nations; (2) changes in technology (particularly communications) which make the greater interdependence possible; (3) the rise in the importance of multinational trading firms; (4) a shift from bulk to processed products in international trade; (5) the recent rapid increases in countertrade, the semi-barter arrangement in which a country imports from another only on the condition that it can export something in return; (6) the proliferation in the 1970's of long-term bilateral agreements in which the importer agrees to purchase and the exporter agrees to sell some minimum quantity of a commodity over a specified period of years; and (7) the effect of fluctuating monetary exchange rates coupled with the traditional wide use of the U.S. dollar as an international reserve currency along with the emergence of an international capital market.

The need for a healthy international trade in agricultural products is more important than ever. World population continues to grow, and as yet it has not been demonstrated that the countries and regions with the most rapid population growth can increase their own agricultural output sufficiently.

The theoretical arguments in favor of free trade are compelling. Clearly the world would be better off in terms of products available to consumers, prices paid by consumers, and income to producers of agricultural products. It is much easier to accept this concept, however, as a blueprint for the way in which the world *should* be organized if we were starting all over again. The reality is that various forms of domestic and international restrictions (or protections) do exist, and certain producers within countries and some countries as a whole may be disadvantaged (at least in the short run) if further moves toward freer trade are made. As noted above, many changes have occurred in recent years which make the international scene different and in most cases make the pressures for protectionism even greater than before.

It is also clear that the international trade scene is having (or should have) an increasing impact on the domestic agricultural policies of many nations. The United States, for example, has substantially altered its domestic agricultural policies over the past 15 years to reflect a greater dependence on international markets for its products. The same is true to some extent of several other nations such as Canada, Argentina, Brazil and Australia. Others, while recognizing implicitly the impact of foreign markets, still continue policies which are dominated by a greater concern for domestic impacts than for the international impacts. The EEC is in this category.

Decisions made during the next few years in the trade arena will be critical in determining not only the nature of trade relationships but internal agricultural policies as well. National or regional economies truly oriented toward freer international trade must by necessity develop internal policies which allow their agricultural production and marketing to be more responsive to price signals

given in the international markets. Insulating producers from these signals through use of the various methods discussed earlier (high price supports, subsidized exports, etc.) can only lead in the longer run to even greater undesirable consequences, such as misallocation of resources, higher-than-necessary consumer prices and increasing difficulty for importing nations to have steady supplies of agricultural products at prices they can afford to pay.

A fair question you might ask of me is, "What, then, *is* the appropriate role of a government in agricultural production and marketing?" I would list six areas.

(1) Conducting research and supporting research by other entities in all aspects of agricultural production and marketing. The large increases in agricultural productivity in the past 50 years are in great part due to such efforts. Further gains are needed and are possible. Public expenditures are justified because it is the public, in addition to those directly involved in agriculture, who benefits.

(2) Conducting and supporting educational programs to disseminate the store of production and marketing knowledge to those in the production and marketing system who can utilize it.

(3) Aiding in the development and maintenance of a marketing infrastructure. This includes transportation facilities (roads, railroads, port facilities, etc.) Also included in the infrastructure category are such things as setting standards for, and enforcing adherence to, sanitation requirements, grades and standards.

(4) Providing some mechanism to assure that adequate credit at reasonable rates is available to the agricultural sector. This need not (and in my judgement usually should not) be in the form of direct government loans and subsidies. Increasing amounts of fixed and operating capital are needed in any developed agricultural economy, and it is in the public interest to assure that the agricultural sector has access to adequate capital.

(5) Assuring an economic structure and environment that provides market (price and income) incentives for farmers and marketing firms to produce and market those products and services which consumers (domestically and internationally) indicate a desire, a willingness, and an ability to pay.

(6) Making every effort to see that foreign markets are open to its own agricultural products and that foreign agricultural products are not unfairly restricted from domestic consumers. This means that every nation has an obligation to bargain, negotiate and work toward freer international trade. It ialso means that a nation has a right (and an obligation) to take retaliatory measures in order to achieve these results if they cannot be achieved at the bargaining table.