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WORLD AGRICULTURE IN DISARRAY REVISITED*

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In *World Agriculture in Disarray* I argued that the result of government intervention in agriculture would be to increase the costs of farm policies to taxpayers and consumers and to restrict agricultural trade. A review of the current situation in world agriculture confirms these projections. The policies of the major countries in relation to agriculture have clearly not succeeded in their aims and at the same time have created many problems, particularly in the sphere of agricultural trade. The solution to the crisis in the farm sector must take account of the inherent characteristics of agriculture itself.

Almost fifteen years after *World Agriculture in Disarray* (Johnson 1973) was completed, I return to the topic to ask whether there have been any fundamental changes in the basic conditions affecting the production, consumption and trade of farm products and the employment and remuneration of resources engaged in agriculture. Unfortunately it takes little more than casual observation to permit one to conclude that the disarray has not diminished in the intervening period. It is apparent that the disarray has, in fact, deepened. But before I document the changes that have made the disarray more prevalent and pervasive, I want to review some of the other aspects of *World Agriculture in Disarray* that are of some analytical significance.

The basic conception of *Disarray* was that the numerous product market and trade interventions pursued by national governments had little or no effect on the welfare of farm people. This conclusion was derived from a reasonably simple application of standard neoclassical economics to conditions affecting agricultural activities in the industrialised countries.

The underlying ideas in *Disarray* were simple ones. The starting point was that economic growth requires significant adjustments in agriculture and by farm people if farm people are to share the benefits of economic growth in their economy. These adjustments impose substantial costs on farmers in terms of the need to change resource combinations, often with striking rapidity. In particular, the most difficult adjustments are required of labour.

Why Agriculture Declines

As economic growth occurs, defined as an increase in real per person incomes, agriculture's relative importance in the economy declines. The decline results from certain simple but absolutely fundamental relationships that are an essential aspect of a growing economy. Agriculture has the unfortunate fate of producing goods that are necessities, which means that the income elasticities of demand for farm products are less than one. Since the income elasticity of demand for all products and

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services in an economy is one, this means that the income elasticity of demand for non-farm goods and services is greater than one. These relationships mean that as real per person incomes increase, the demand for farm products grows more slowly than the demand for all other products and services. In fact, the disparity in the rates at which the demands for farm and non-farm products increases becomes greater as per person incomes rise from relatively low levels, such as $200 per person, to levels of $2500 or more. At low levels of income the increase in demand associated with a given increase in real per person income for non-farm goods may be two to three times that for farm products. As per person incomes increase, the income elasticity of demand for farm goods gradually declines from perhaps 0·6–0·7 to 0·2–0·1. Thus, at incomes of $5000 or more, the growth in demand for non-farm goods will be ten times more than the growth in demand for farm goods.

While the classical economists were concerned that demand, largely driven by population growth, would outstrip the growth of food supply, it has been evident for at least a century that productivity change in agriculture can be at a rate comparable to that which occurs in the rest of the economy. The increase in supply of farm products at constant real prices may not be at the same rate as the growth in the supply of non-farm goods for the reason already alluded to, namely the much slower growth in demand for food than for non-food goods. Consequently, with agricultural productivity increasing at about the same rate as non-agricultural productivity, agriculture's fate is to shrink. This is not a recent historical phenomenon. The industrial revolution brought with it the seeds of change in labour productivity in agriculture and in the capacity to cultivate lands that could not have sustained a significant farm population just a century earlier.

It has been argued that the conclusion that agriculture must decline need hold only for a closed economy, either a particular nation or the world as a whole. If the comparative advantage of agriculture is what I call absolute — only farm products are exported and only non-farm products are imported — could it not be that in a small open economy agriculture's relative importance might not decline? Empirical experience, of course, indicates that decline occurs even with these restrictive conditions very largely met. One needs only trace the experiences of Australia, New Zealand and Iowa as small open economies that now employ no more than a tenth of their labour force in farming compared with 80 per cent or more within the past century.

Agriculture and farm people create many of the conditions for the decline of agriculture in a growing and open economy. When farm incomes increase, farm people change their consumption patterns away from food toward non-farm goods and services, just as people do generally. Many of the goods and services for which demand increases are non-tradables — ranging from roads and local transportation to beauty parlours, barber shops, retail services and movie theatres. Labour transfers out of agriculture to provide such services. Even if the shift in consumption were toward imported manufactured products, such products require a significant component of non-tradable services to be available for consumption.

But perhaps the most striking contribution of agriculture to its own decline comes from a whole host of production decisions. Productivity

change in agriculture has required the use of new inputs, almost all having a significant non-farm component. One needs only to illustrate — tractors replacing horses; combines replacing human labour, the scythe and the threshing floor; hybrid seeds replacing seeds from local production with an on-farm labour input; and herbicides replacing farm labour. But this is not all. As labour of farm people increases in value, they find it advantageous to support specialisation in the processing of their output — using the creamery instead of making butter at home, purchasing processed grain in place of using their labour to mill the grain, or buying meat rather than slaughtering their own livestock.

These changes are apparent in the rapid growth of the importance of current operating expenses as a percentage of the value of gross farm output from 1950 through to the mid-1960s. During that period, in north-west Europe current operating expenses, in constant prices, grew at twice the rate of gross output in constant prices. And current operating expenses did not include payments for labour or investment (neither current investment nor depreciation).

As a consequence, in a small open economy or in the world as a whole, agriculture will decline in a relative sense because of the way farmers and farm people respond to economic growth. A decline in the real prices of farm products is not required for this conclusion, though obviously if real prices decline, the fall in agriculture's relative importance will be even more rapid.

I have given so much stress to the fact that economic growth requires agriculture to decline because most national agricultural price interventions are motivated by an effort to offset the effects of the required adjustment process. As economists we apparently have done a very poor job of educating our politicians about the inevitability of the decline of agriculture and of explaining that government intervention, if it exists, should be designed to facilitate the adjustment rather than to impede it.

Output Prices and Welfare of Farmers

Put very simply, the basic conclusion of *Disarray* was that product demand is of little importance in determining the returns to mobile farm resources, namely management, labour and capital. Product demand is a factor in determining the return to land or rent. But it is supply conditions that primarily determine the returns to labour and capital. Demand can be important in influencing the level of employment, but when the supplies of farm labour and capital are very elastic, as they are in the long run, wage rates and capital returns are determined primarily by the supply functions for labour and capital.

The case for intervention in product markets, through price supports, through subsidies related to output or by control of imports or exports to achieve a domestic price objective, is based on two erroneous assumptions. The first is that resource returns are determined by demand conditions and the second is that the economy is static. As I argued in *Disarray*, an output price increase has a once-and-for-all effect on resource returns. In the case of labour, this is not enough. If farm people are to share in economic growth, the returns to, or wage of, labour

must increase continuously so that farm workers do not fall behind non-farm workers in terms of income.

Farm Resource Returns Depend on Alternatives

If the level of product prices is relatively unimportant in determining the returns to farm labour and capital, what is important in that determination? The answer is a simple one, yet the answer is almost universally ignored in the design of farm price and income policies. In the industrialised countries the returns to labour and capital are determined primarily by the returns to comparable labour and capital in the rest of the economy. This is not to say that such has always been the case or that there cannot be short-run variations in the returns to farm labour that are not matched by similar variations in the economy as a whole.

But if you look at the differences in the returns to farm labour across countries it becomes obvious that the levels of output prices explain very little of such differences. The difference in returns to farm labour that exists between France and Portugal, for example, cannot be explained by output price differences. In fact, in recent years output prices in Portugal have been higher than in France. The differences are, in fact, explained by the general levels of returns to labour in the two economies.

Simple models of farm labour supply and demand may be used to show that output prices have a very modest effect on the returns to farm labour compared with other changes that affect the returns. The other much more powerful factors are the growth in non-farm earnings and increases in the level of schooling, that is, increased human capital. Using the available empirical estimates for the United States, it was shown that one year's growth in non-farm wages of just 2 per cent had as much effect on the returns to farm labour as an output price increase of 10 per cent. In a growing economy, the 2 per cent growth in non-farm labour earnings can be repeated indefinitely. In fact, for most industrialised economies for most of the period since the Second World War the growth in real labour earnings has exceeded 2 per cent a year. A real output price increase of 10 per cent clearly cannot be repeated, at least not more than once or twice.

The increase in schooling has two effects on the returns to farm labour. The direct effect is that more schooling increases the marginal product of labour engaged in agriculture; the indirect effect is that more schooling increases the rate of migration out of agriculture. Taken together, an increase in schooling of farm workers of 10 per cent resulted in increased returns to farm labour of approximately 10 per cent. For the time period of the study, an increase in schooling of 10 per cent meant an increase of approximately one year in the number of years of schooling for farm youth.

In the industrialised economies there have been substantial improvements in the education of rural people over the past half century. However, neither these improvements nor the improvements in transportation and communication have ever been considered as critical components of farm policy in any country. Yet these changes, together with the growth in real non-farm labour earnings, have been the

primary source of the substantial growth in the real incomes of farm families in the industrialised economies over the past four decades. In fact, over this period real farm output prices have declined in almost all industrialised economies. But due to productivity improvements and the greater integration of farm people into the rest of the economy, the real incomes of farm families have generally doubled (or more) over the past four decades.

I know of no more striking proof of the futility of using higher product prices to increase the return to farm labour than the conclusion reached by the Commission of the European Communities (1984) in its 1983 report on the agricultural situation. It was concluded:

> During the period from 1964/65 to 1976/77, regional disparities in agricultural incomes (as measured by gross value-added per agricultural worker) increased in the Community. The ratio between the regions with the highest agricultural incomes and those with the lowest rose from 5:1 to 6:1.
>
> Generally speaking, the regions with above-average levels of agricultural income are to be found in a favourable general economic context; the converse is true of regions with a low level of agricultural income.

Later in the same report, the Commission referred more directly to the issue of factors determining the incomes of farm families:

> . . . in 1975 it was found that about one quarter of farm holders had a second gainful activity. In this context, it should be borne in mind that the availability of a second gainful activity to part-time holders varies significantly from region to region — for example, while the majority of part-time farm holders in Southern Germany have a second income earned outside their farm, in the Mezzogiorno (southern Italy) few such opportunities exist and most farm holders are under-employed.

But the Commission stopped short of addressing the full implications of non-farm income opportunities for the withdrawal of labour from agriculture and the consequent effects on the earnings of those who remain in agriculture. Given the dynamic effects of economic growth on agriculture, farm people can share in the gains of economic growth only as the supply of workers to agriculture responds to the rising level of real labour earnings in the rest of the economy. Due to the slow growth of demand for farm products, the growth of productivity in agriculture at a rapid rate, and the substitution of farm inputs for labour due to the increase in real earnings in farming, labour use in agriculture declines. It declines both through partial labour withdrawal (part-time farming) and through migration from the countryside to non-farm areas.

If high output prices have little effect on the real earnings for farm work, do they have a significant effect on the level of employment in agriculture? A few years ago I looked at this issue for the European Community (of nine countries), North America and Japan (Johnson 1982). Annual rates of decline in farm employment were calculated for 1955–60, 1960–70 and 1970–79 and compared with wheat and feed grains prices in 1970 and 1979. For this period of a quarter of a century there did not exist any relationship between the level of prices and the rate of decline in farm employment. I do not imply that the level of

output prices had no effect on farm employment, but it seems clear that other factors were far more important than output prices in determining the rate of employment decline. These other factors include the discrepancy in farm and non-farm labour earnings at the beginning of the period, the rate of increase in real non-farm earnings, the rate of growth in non-farm employment, the regional dispersion of non-farm employment, and the improvement in the rural infrastructure, such as roads, buses and communications.

One reason that output price levels did not appear to be related to changes in farm employment was probably that in these countries in the mid-1950s there were different degrees of long-run disequilibrium in the returns to farm and non-farm labour. It seems quite clear that, at least in Japan and North America, farm labour returns increased relative to non-farm labour returns, at least until the early 1980s. Thus the actual changes in farm employment may well have been different from those that would have occurred had there been no increase in the farm wage relative to the non-farm wage. Obviously these data merit a more systematic statistical analysis than I undertook.

High product prices are not enough for farmers to share in the fruits of economic growth. Increasing product prices, in the short run, can increase the returns to farm labour by increasing the demand for labour while the supply elasticity is very low. But the increase in the returns to labour would be a once-and-for-all increase. This is not enough. What the policy makers who assume that high output prices will have a favourable long-run effect on farm incomes fail to recognise is that farm incomes are pursuing a moving target in a growing economy. The moving target is the result of the growth in real non-farm labour earnings. Since farm employment declines absolutely in growing industrialised economies, a once-and-for-all increase in labour earnings is soon eroded by even a very modest fall in the rate of decline in farm employment.

On the whole, I believe that the analysis and conclusions presented in *Disarray* have stood the test of time quite well. Obviously I am not an unbiased observer, but I have seen nothing in the unfolding of farm policies and developments in agriculture in the industrialised countries that contradicts any significant element in *Disarray*. In fact, I think it can be said that there is now increasing recognition among policy makers that manipulation of output prices is not an effective way of improving the lot of farm people. Unfortunately, there does not seem to be any agreement among the policy makers in Western Europe and North America about what the appropriate policy alternatives are.

Important Omissions

Let me now turn to what I consider to be two most important shortcomings of *Disarray*. In terms of the emphasis of the book on the industrialised countries, a major shortcoming was my failure to recognise the full impact of macroeconomic variables on farming, farm people and the sectors closely related to agriculture. In particular, I completely ignored the role of exchange rates and monetary and fiscal policies in influencing decisions with major consequences to agriculture. The significance of macroeconomic policies for the agricultural sector is discussed in the following section.

The other major shortcoming was the failure to consider the farm price policies of the developing countries. Much of the motivation for *Disarray* was to make clear the adverse effects that the farm price and trade policies of the industrialised countries had on the agricultural sectors of the developing countries. Unfortunately I did not realise at the time that, in all too many developing countries, the negative consequences of the industrialised country policies were exacerbated by the strong urban bias of economic policies in many, if not most, developing countries. Import substitution policies, price ceilings or low procurement prices, and use of trade in agricultural products to hold domestic farm prices below international market prices were clearly adverse to the development of agriculture in the developing countries. I did view the consequences of food aid as an adverse factor in the development of agriculture in the developing economies and argued for increased investment in research but I did not consider the full implications for agriculture of the strong urban bias of developing country policies.

Economic Instability and Agriculture

It is now all too clear that changes in economy-wide variables have major effects on the economic state of agriculture. These effects can be such as to increase greatly the variability and uncertainty faced by farm people. It is not only national macroeconomic policies that are important. The increased importance of international trade, combined with the integration of capital markets, has meant that many of the changes in macroeconomic variables within a country originate from outside the country and are thus beyond the control of that country.

In an important article published in 1974, G. Edward Schuh brought to our attention the role of exchange rates in properly understanding the economic circumstances of agriculture. In that article he showed the impact of the overvaluation of the US dollar on the prices received by farmers, the resource adjustments that had been required and efforts of government to offset the adverse consequences. Thus to some degree the government payments made to farmers offset the negative impact of the overvaluation, which acted as an export tax on traded farm products. He argued that the dollar was overvalued throughout the 1950s and 1960s, and that the overvaluation increased as time passed and reached an unsustainable level resulting in the 1971 devaluation of the dollar.

But the overvaluation of the dollar that existed during the late 1960s and early 1970s was relatively mild in terms of its effects on agriculture compared with the effects of other macroeconomic variables from 1973 until the present. This is not the place to detail the many changes in variables that had major short-run and, in some cases, long-run consequences for agriculture in the United States as well as in other industrialised countries. But a brief summary seems appropriate.

In the United States, as in Australia, for most years during the 1970s real interest rates were negative and the rapid increases in farm land prices reflected the effect of such low interest rates as well as the expectations concerning the level of farm prices. After 1973 the recycling of the petrodollars resulted in such a large excess supply of the dollar that the exchange value of the dollar had fallen substantially by

the late 1970s. One major effect of the worldwide inflation plus the devaluation of the US dollar was the sharp increase in world trade in farm products and the sharp increase in the US share of that market for several key products, especially grains.

With the change in US monetary policy in the late 1970s, interest rates began to increase, first in nominal terms and then in real terms. The exchange value of the dollar increased in the early 1980s and, with the decline in US and world inflation, the process that started in the mid-1970s was reversed — export growth slowed and the US share of world trade declined. The sharp swings in farm incomes were due primarily to the effects of macroeconomic policies and only to a limited degree to the effects of farm price and income policies in the United States. During the 1980s the US farm price policies exacerbated the adverse consequences of the change in the macroeconomic environment. The 1981 farm bill set the farm price supports too high and the United States once again became a residual supplier in world markets. However, even if the price supports had been substantially lower, though the United States would have retained more of world markets, it would have done so at very low prices.

During the 1970s the macroeconomic setting was far more important than the farm price and income policies in all the industrialised economies, with the possible exception of Japan, where the farm policies were quite effective in isolating agriculture from the swings in the macroeconomic variables.

Policy makers in the European Community have taken pride in achieving quite stable output prices, particularly during the 1970s and early 1980s. Between 1975–76 and 1983–84, the lowest index of real output prices (1980–81 = 100) was 98·4 and the highest was 109·3. Estimates of net value added per labour unit employed in agriculture in the EC countries appear to be reasonably stable for 1974–83 (Commission of the European Communities 1984, p. 39). But value added, even net value added, includes interest costs as a positive component. Interest costs increased dramatically in some of the EC countries in the unstable macroeconomic environment of the period. Interest costs per hectare in both the Netherlands and the United Kingdom increased from about 160 ECU in 1979 to nearly 350 ECU just two years later (Commission of the European Communities 1984, p. 44). Danish agriculture has long operated with a major dependence on credit. In Denmark, the relative share of interest payments in the gross value added (which is net value added plus depreciation) increased from 23 per cent in 1975 to 48 per cent in 1981 (OECD 1983, p. 42). It is striking that in 1981 interest costs were 58 per cent of net value added in Denmark.

However, relatively stable output prices have not been translated into stable net incomes of farm operators. In Great Britain, for example, real net farm operator income fell by more than 50 per cent from 1977–78 to 1981–82. From 1982 to 1983 the change in real net value added in Germany was a fall of 22 per cent and in Denmark a fall of 18 per cent.

The share of interest payments in gross value added doubled in Canada and the United States between 1975 and 1980, and in the latter year equalled 19 per cent in Canada (Cloutier and MacMillan 1986) and

21 per cent in the United States. In the United States total interest payments increased from US$8000m in 1978 to US$21 000m just four years later. The importance of this increase is indicated by the fact that in 1978 net farm operator income was US$25 000m and in 1982 was US$23 000m. By 1982 interest payments were almost as large as net farm operator income — the bankers and other creditors got as much from farming as did the people who did the work, so to speak.

The changes in interest costs were so great in a number of countries that the stabilising effects of direct price and income policies were significantly offset. There were, of course, other macroeconomic variables that negated some of the desired effects of national agricultural policies. In the United States, the increase in the foreign exchange value of the dollar, combined with high fixed price supports, resulted in a loss of export markets and the accumulation of stocks. The latter, in turn, induced the government to attempt to manage supply through acreage diversion. The acreage diversions then called forth responses from competing producers and further loss of export markets occurred.

Disarray Has Increased

One must conclude that the disarray in world agriculture is now greater than it was fifteen years ago. In real terms the cost of government intervention in agriculture and food imposed on consumers and taxpayers has clearly grown since the early 1970s. We have a variety of estimates that indicate a significant increase in rates of protection of agriculture over the past fifteen years. The nominal rate of protection of Japanese agriculture increased from about 100 per cent to 150 per cent from 1980 to 1982 (Tyers and Anderson 1984) and has certainly increased since then. Protection levels in the European Community are currently much greater than fifteen years ago for grains and in recent years significant protection has been introduced for oilseeds where none existed in the early 1970s (BAE 1985). There can be no doubt about the increase in protection in the United States in recent years. Taking all factors into account, the United States had relatively low rates of protection for grains, cotton and livestock products, except dairy products, until 1981.

If protection levels are to be measured as the differences between domestic prices plus producer subsidies and world equilibrium prices if there were free trade, the recent sharp decline in the international market prices of several important farm products results in exaggeration of the current levels of protection. The recent declines in international prices can be attributed primarily to a significant policy change by the United States. In terms of the interests of US farmers and farmers elsewhere in the world, the 1981 US farm legislation was a disaster of major proportions. The target prices, which provided the incentives to produce, and the price supports were set too high. At the time the bill was passed, the conventional wisdom in Washington was that world food demand was going to grow more rapidly than food supply. While it is now hard to believe that such views could have been held at that time, such was the case.

The legislation had a number of undesirable consequences. One was that instead of assisting in the necessary transfer of resources out of

agriculture, it encouraged resources to remain in farming. Given the level of the target prices, farmers were misled concerning their long-term prospects. A second negative effect was that the high support prices for grains and cotton made the United States once again the world's residual supplier. Competing exporters, including Australia, were quick to take over markets at prices a little below what US sellers could offer. The sharp increase in US stocks of grains and cotton led to the 1983 payment-in-kind program, under which nearly a third of the cropping land normally devoted to grains and cotton was idled. The US officials apparently believed that they could manage world supplies, but the responses of farmers elsewhere in the world showed that such a view represented little more than self-delusion.

Export markets continued to disappear and stocks continued to increase. The 1985 farm legislation represented an effort to regain export market share by sharply reducing the levels at which market prices were to be supported. The impact was soon felt in international markets, with the prices of rice and cotton declining by about half, the price of corn by nearly a third and the price of wheat by about a quarter. But the declines in market prices were not accompanied by any reduction in production incentives, since the target prices were left unchanged for 1986 and 1987 and were then to be decreased slightly for the subsequent three years. It is particularly alarming that even with the sharp declines in prices, world grain stocks may increase by as much as 50 Mt or by 15 per cent, during the 1986–87 crop year.

The effect of the 1985 legislation is to make all or nearly all of the large US stocks of grain and cotton available for sale. This explains most of the large drop in international prices. But since world stocks will not be reduced during the 1986–87 crop year, it is unlikely that we have seen the end of the price declines.

I have given this detail about US policy changes and their consequences to make a number of points. One is that US farm programs contributed significantly to excess production capacity in agriculture in the industrialised countries. They did so domestically by providing inappropriate signals through the high target prices and did so internationally by holding prices higher than would equilibrate world supply and demand. The second is that to the best of my knowledge there was no effort by government officials in other industrialised countries to warn their farmers that the prices they were facing in international markets were artificially high and that sooner or later there would be declines. Few public officials want to be the bearers of bad news. The third, and my final point, is that in the haste to recapture its lost export market share, the United States showed no concern about the effects of its actions on others. In terms of the public rhetoric, the European Community had been the villain primarily responsible for the United States' loss of market share through the continued expansion of production and the indiscriminate use of export subsidies. But who got bashed by the US actions? Not the EC farmer, at least not in the short run, though over time the lower international prices may lead to some reduction in EC intervention prices. The farmers who were hardest hit were in developing countries, such as the rice producers in Thailand and cotton producers in numerous low income countries. Only the United States and the USSR among the industrialised countries produce any

significant amount of cotton; all the rest is produced in low income countries such as India, Egypt, China and Pakistan.

I have been quite critical of the policies of my own country and have said little about the worsening impact of the policies of the European Community and Japan on international markets for agricultural products. Protection levels in the European Community increased little, if at all, during the 1970s and actually declined during the early 1980s as the exchange value of the US dollar increased. But the Community deserves only condemnation for standing pat as it approached and surpassed self-sufficiency in grains, sugar, beef, poultry and cheese. In recent years the European Community has employed very large subsidies to produce oilseeds to add to its unneeded productive capacity. The Community has not shown the slightest concern for the effects of its farm price policies on any other country, except possibly some of its former colonies.

Japan has actually made some significant moves to open its markets, though most of these were instigated in the early 1960s when it was decided that the Japanese consumer should have access to more meat. But the intention was that it should be meat produced in Japan; to make that possible substantial imports of feedstuffs were required. Japanese policy makers have quite cynically played on the concerns of the Japanese consumer about food security to maintain support for a high cost and highly protected agriculture (Johnson 1986). Japanese policy makers played on food security fears that already existed as a result of the food shortages during and following the Second World War and, by forecasting world food stringencies and sharply higher real food prices, have attempted to keep these fears alive. The fact that current emphasis on self-sufficiency in rice does not provide a significant degree of food security for a country that imports all of the energy required to produce its fertiliser and other farm chemicals seems wholly beside the point to their policy makers.

Concluding Comments

When I wrote *World Agriculture in Disarray* I was rather optimistic that trade negotiations on agricultural policy interventions would have some success in reducing the barriers to trade in farm products. I concluded this, obviously incorrectly, because of the adverse consequences that I saw from a continuation of the farm and trade policies then prevailing. In the final chapter of *Disarray* I wrote the following:

> If the current agricultural and trade policies of the major industrial countries are continued throughout this decade, the following undesirable consequences are highly probable:
>
> 1. The level of costs of the farm policies in the industrial countries to taxpayers and/or consumers will continue to increase.
> 2. A substantial and probably increasing fraction of the world's agricultural output will be produced under high-cost conditions.
> 3. The percentage of the world's trade in agricultural products that is managed and manipulated through the use of export subsidies will increase from its current level.

4. The developing countries will face increasing difficulties in obtaining markets for any farm product that is directly competitive with farm products grown in temperate zones.

5. The degree of effective protection provided agriculture will gradually increase in several industrial countries (Johnson 1973, pp. 249–50).

Unfortunately each of the five projections has now been confirmed. Yet policy makers in the industrialised countries paid almost no attention.

Let me close with two quotations. In 1776 Adam Smith wrote of a change in Britain's Corn Laws in *The Wealth of Nations*:

> So far, therefore, this law seems to be inferior to the ancient system. With all its imperfections, however, we may perhaps say of it what was said of the laws of Solon, that, though not the best in itself, it is the best which the interests, prejudices, and temper of the times would admit of. It may perhaps in due time prepare the way for a better (Smith 1937, p. 510).

Unfortunately this great economist appears to have been unduly optimistic concerning the perfectibility of legislation dealing with agriculture and food. But being a realist, he probably would not have been wholly surprised in 1985 had he heard Senator Jesse Helms, then Chairman of the Agricultural Committee of the US Senate: 'I think we have an obligation to do something, even if it's wrong'.

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