



***The World's Largest Open Access Agricultural & Applied Economics Digital Library***

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from AgEcon Search may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*



Centre for Agricultural Strategy

# Priorities for a new century – agriculture, food and rural policies in the European Union

Edited by B J Marshall & F A Miller

STP  
HD1920.5  
.Z8  
P75x  
1995

S Paper 31

April 1995

## 4 Changes in the pattern of world trade in agricultural products

Michael Davenport

### INTRODUCTION

Patterns of trade in agriculture, as in any other sector, can change rapidly and unpredictably. Of course the direction and impact of technological change is of its nature hard to anticipate. But even if agricultural technology were to remain constant over the next two decades, one can be sure that the pattern of world trade in agricultural products would not remain unchanged. On the demand side, the structure of consumer demand will change as personal incomes rise and tastes evolve. On the supply side, technology will develop including fertiliser and pesticide use, biotechnology and so on. But also farmers' responses to price signals, from wherever they come, can be rapid, and given the plethora of other factors that determine farmers' behaviour, they would be hard to forecast, even if the price signals themselves could be predicted. Just as important as any of these factors, agricultural policies will evolve in response to the influence of different lobby groups, consumers, the food industry, other industries using agricultural products as inputs and of course, the farmers themselves.

These developments will all contribute to changes in the prices of different products on the world market and to changes in the pattern of trade flows. I am not planning to offer a comprehensive forecast of all these developments, even for one product, let alone agricultural output in general. What I shall do is less ambitious. I shall discuss some of the reasons why we can be fairly confident that, whatever the patterns of world trade in agriculture in twenty years' time, they will be very

different from those of today - in particular, I will concentrate on two of the most important factors. Firstly the re-establishment of market disciplines for the agricultural sector, not only in the western developed countries but also in the Third World, and secondly, the distinct but closely related liberalisation of international trade in agricultural products. I will confine my remarks to temperate agricultural products. Tropical agriculture operates in a more liberal trading environment. The Uruguay Round has more or less removed the few remaining tariffs on unprocessed tropical products, including coffee and cocoa beans, but it is important to remember that there still remains a serious problem of tariff escalation in tropical products. Increasingly higher tariff barriers are imposed by the developed countries as the products become more processed. This obviously makes the development of downstream industries, such as coffee roasting, powdered coffee, cocoa butter and powder production or chocolate much more difficult for the country producing the raw beans. But this is another question. I shall concentrate on temperate agricultural products, which in any event are several times more important than tropical products for the developing countries as a whole, both in production and in consumption. First it is useful to establish the overall structure of world agricultural output and trade.

#### WORLD AGRICULTURE - THE BROAD PICTURE

There are a number of problems peculiar to agriculture. They differ from country to country. For example in some countries including the southern European Union states, the sector suffers from a relative lack of education, that is human capital. In many countries there is frequently a shortage of non-human capital. Farms are too small and there is insufficient capital equipment. But there are two problems that have combined to create enormous economic and political problems in virtually all the developed countries. These are the combination of declining relative demand and the misguided efforts by governments in the policies they have adopted to support farmers' incomes. On the one hand, as people get richer they spend a lower and lower proportion of their income on food, which means that farm incomes, if left to the market, tend to fall below incomes in the other sectors of the economy. On the other hand, the policy response has traditionally been to artificially support the prices received by the farmer with the result that surpluses are produced which have been dumped on world markets, thereby depressing world market prices.

Of course there are lots of counter-examples. There are agricultural products for which the income elasticity of demand is high - winter fruits and vegetables for example - and also there have been many examples of farm support programmes which have not been based on

artificially propping up prices. There are also serious problems with the agricultural policies of the developing countries, which tend to favour urban spending power at the expense of rural incomes - about which I shall have more to say later. However, the characterisation of the predicament of world agriculture as the result of declining relative demand and misguided policies to protect farmers' incomes remains broadly valid. The result has been the expansion of output in the developed countries beyond that which can be utilised and the subsidised export - or dumping - of the excess on world markets.

Table 4.1 gives three measures of the performance of the agricultural sector in the developed countries - that is the western market economies, roughly coextensive with membership of the OECD. It shows how the self-sufficiency ratios, that is the ratio of production to utilisation, and the shares of these countries in world trade have evolved over the period since the early 1960s. Incidentally, the use of the self-sufficiency ratio has no prescriptive connotations. It is just a good measure of the change in the relationship between production

**Table 4.1**  
**Self-sufficiency ratios and shares in world trade, developed countries, selected periods<sup>1</sup>**

Developed Market Economies	Wheat	Coarse grains	Meat 'red'	Other meat	Dairy products	Sugar
<b>Self-sufficiency</b>						
1961-64	146	98	97	100	104	63
1980-83	195	110	102	100	109	95
1991-93	163	111	103	101	118	104
<b>Share of world exports</b>						
1961-64	83	65	56	78	90	12
1980-83	91	79	70	72	94	29
1991-93	86	75	74	67	99	35
<b>Share of world imports</b>						
1961-64	26	77	80	61	64	58
1980-83	17	48	60	63	53	33
1991-93	8	34	63	56	22	33

<sup>1</sup> The self-sufficiency ratio is the ratio of production to utilisation, ie production plus imports minus exports. All calculations in metric tonnes. Trade among the developed countries is included but not intra-EU trade.

Source: Tyers & Anderson for 1961-64 and 1980-83; Davenport for 1991-93 on the basis of FAO and UN data.

and consumption. Because of data limitations, consumption is defined as production less exports plus imports with no adjustment made for changes in stocks.

The production and export of agricultural goods by the developed market economies expanded greatly in the 1960s and 1970s - though it should be stressed that this represents the continuation of a trend that began much earlier. Between 1961-63 and 1979-81 exports from Western Europe expanded by 232% while imports increased by only 60%. Exports from North America increased by 158% while imports increased by only 36% (Johnson, 1991, p.46).

Table 4.1 summarises the trends for each of the main temperate agricultural commodities. It shows how the developed countries expanded output relative to consumption up to the early 1980s, in all sectors other than 'other meats', which are pigmeat and poultry. In dairy products the trend has continued up to the 1990s, but in general there has been a levelling off of the self-sufficiency ratio, or even a sharp fall in the case of wheat. Outside of wheat and sugar, however, the increase in the self-sufficiency ratio between the early 1960s and the early 1980s seems quite small. Nevertheless the effects on shares in world exports and/or imports were in some cases large, as with coarse grains, ruminant (red) meats and dairy products. In the early 1960s to the early 1980s, the developed countries raised their share of world exports of red meats from 56 to 70%. By now it is about 75%. In the case of dairy products the developed countries now virtually monopolise world exports. In the case of sugar their share rose from 12 to 29% between the early 1960s and the early 1980s. Since then it has gone on up to 35%.

Meanwhile the shares of imports of the developed countries have fallen and this trend has continued through the 1980s in all the main temperate products except in sugar where it appears to have stabilised. Even where there have been significant increases in demand, for example for beef in Japan, that has generally been met by exports from the developed countries, in that particular case from Australia.

The consequences of these trends are shown in more detail in Table 4.2. This gives a snapshot of the self-sufficiency ratios for the European Union(EU), the United States(US), the developed countries as a group and the developing countries as a group. The developed countries now produce substantial surpluses of grains and dairy products and smaller surpluses of meats and sugar. Meanwhile the developing countries and the countries of Eastern Europe and the former Soviet Union are net importers of all these products except sugar. In the case of sugar the former eastern bloc has been a major net importer, largely from Cuba though it is now finding cheaper suppliers, including, I hardly need say, subsidised exports from the EU.

Table 4.2

**Self-sufficiency ratio and trade shares for EU, US, developed, developing and countries in transition, 1991-93**

1991-93	Wheat	Coarse grains	Meat 'red'	Other meat	Dairy products	Sugar <sup>2</sup>
<b>Self-sufficiency</b>						
European Union	127	107	111	94	120	124
United States	218	127	105	103	102	74
Developed countries	163	111	103	101	118	104
Developing countries	81	93	98	99	66	109
E.Europe and former USSR	84	92	100	99	96	67
<b>Share of world exports</b>						
European Union <sup>1</sup>	20	10	20	13	48	22
United States	33	55	10	19	7	2
Developed countries	86	75	74	67	99	35
Developing countries	12	23	23	33	1	65
E.Europe and former USSR	2	2	3	0	0	1
<b>Share of world imports</b>						
European Union <sup>1</sup>	1	3	4	47	4	12
United States	0	0	1	7	3	10
Developed countries	8	34	63	56	22	33
Developing countries	70	50	33	42	73	46
E.Europe and former USSR	22	16	4	2	6	21

Notes: <sup>1</sup> Intra-EU trade is excluded.

<sup>2</sup> In the case of sugar, data refer to North America rather than the United States.

Source: Author

The other main effect of the agricultural policies of the developed countries on world markets has been to reduce world market prices. This too has had important results for the rest of the world. Incentives for farmers in the developing countries have been diminished and furthermore the import bill for temperate agricultural products for food importing countries has been cut. I will come back to both these issues in due course. But first it is useful to consider the nature of the Uruguay Round agreement.

#### THE URUGUAY ROUND AGREEMENT ON AGRICULTURE

During the course of the seven years of negotiations, which seemed at the time interminable, certain farmers' groups and sympathetic politicians - not on the whole in the United Kingdom - argued that the effects of the agreement would be seriously detrimental to farming in

Western Europe and North America. Among the western developed countries, only Australia and New Zealand, who had to a large extent eliminated their farm subsidy programmes, were unequivocally in favour of a radical, far-reaching deal. Now, after the Round has reached an agreement, it has been widely denounced or greeted, depending on your viewpoint, as largely irrelevant. It is true the agreement had much of its teeth drawn - the most radical reforms have been watered down and a lot of what is left has been achieved already. Nevertheless I shall argue that it is still going to result in far-reaching changes in the pattern of world agricultural production and trade.

First it may be useful to recapitulate the bare bones of the agreement. The principal decisions were:

- domestic support to the agricultural sector as a whole is to be reduced by 20% over the six-year implementation period, subject to a number of exclusions, including environmental payments and general agricultural development services, and deficiency payments, 'decoupled' from production decisions;
- export subsidies are to be reduced to a level 36% below the 1986-1990 base and the quantity of subsidised exports by 21%, both over the same implementation period;
- non-tariff border barriers - including the levies used to sustain the Common Agricultural Policy (CAP) - are to be replaced by tariffs. Initially the tariffs will provide substantially the same level of protection but they are to be reduced by an average 36% with a minimum reduction of 15% for each tariff line over six years;
- these reductions in import barriers are qualified by a safeguards mechanism. This permits additional tariffs in the event of a major reduction in import prices, or a major increase in import volumes, compared with the base period. The amount of additional duty is determined on a sliding scale, between the actual import price and a reference price;
- finally minimum access tariff quotas (at reduced tariff rates) are established where current imports constitute less than 3% of domestic consumption. These quotas are to be expanded to 5% over the implementation period.

Special provisions were made for the developing countries, both in respect of the implementation period - generally extended to 10 years - and with respect to the extent of liberalisation required.

The lobbyists against liberalisation succeeded in having these measures watered down in several respects:

- instead of the 1986-1990 base period for measuring the required annual changes for reducing subsidised exports, the period 1991-1992 could be used. This so-called front loading means that where the total subsidies were higher in the period 1991-1992, that

period could be used as a base to smooth the process of reduction. But it also has the effect of slowing down the adjustment;

- certain policy instruments were excluded from the rules on reduction in domestic supports, ie they were put in the 'green box', even though they could not be said to strictly meet the criterion for the 'green box' which is that they should not be linked to output. In particular the US deficiency payments scheme and the EU's compensation scheme for cereal producers were allowed. In both these schemes, payments are based mainly on historical acreage and yields, but over time improvements in yields can justify increased payments at a later date.

#### **Assessment of results**

The typical reaction now is that the package will have very modest effects on world prices and the pattern of trade in those goods where protection among the western industrialised countries has been substantial - grains, (in particular wheat), 'red' meats (beef and sheepmeat), dairy products and sugar. The agreement will lead to a small reduction in exports of these products by the western countries. This will mean that world prices will rise modestly relative to what they would otherwise have been. This assessment certainly underestimates the significance of the Uruguay Round agreement for a number of reasons:

- it takes a minimalist definition of what the Uruguay Round actually achieved in terms of reforms of agricultural policies;
- secondly, if we just take those modest effects on world prices, they can be significant for certain countries including a number of developing countries who could find that their products are competitive, or could be made competitive, on the world market;
- thirdly, it ignores the impact of the Uruguay Round in giving momentum to - even making fashionable - the liberalisation of agricultural trade and, indeed, the liberalisation of trade barriers in general. It is undoubtedly the case that the Uruguay Round has led to the questioning of traditional protectionist dogmas in many countries, in particular, but by no means exclusively, the developing countries. It has also led to the growth of a lobby for the further liberalisation of the agricultural sector - and specifically of agricultural trade - in most developed economies. The momentum for further reform in the CAP is particularly evident.

#### **What to include in an assessment of the Uruguay Round**

I shall take each of these points in turn. Firstly in assessing the results of the agricultural side of the Uruguay Round agreement, it is necessary to decide what to include as part of that agreement. Those

who pooh-pooh it as not very significant, generally exclude from consideration the 1992 CAP reforms, the so-called MacSharry reforms, as well as the various changes in the US in favour of supply management in place of price supports. In both cases a wide array of measures has been adopted which 'de-couple' subsidies from output. The most obvious of these measures are 'Set-aside' schemes. In some cases where the amount of subsidy is still primarily based on the level of output, the guaranteed price progressively declines beyond a certain level of aggregate output.

One of the reasons for dismissing the effects of the Uruguay Round is based on the fact that many of the requirements, particularly those of reducing domestic subsidies, have already been largely satisfied. For example, the reductions in subsidies to grain production alone in the EU are sufficient to meet the Uruguay Round requirements of a 20% overall cut in agricultural subsidies. But the point is that some of the reforms that have taken place in the EU, the US and elsewhere are attributable to the Uruguay Round, and even where reforms would have taken place in any event, usually because of budgetary pressures, the nature of those reforms, the emphasis on de-coupling subsidies from output, owes a lot to the simultaneous negotiations going on under the Uruguay Round.

### **Estimates of the Uruguay Round effects**

In a recent study I did with the Overseas Development Institute we had access to the OECD RUNS model - RUNS stands for Rural-Urban North-South. The model disaggregates agricultural production and trade into 13 commodity groups and into 22 countries and regions. (It is a general equilibrium model with labour inputs and investment in each sector endogenous, though for each country or region net international capital flows were constrained to predetermined, generally expanding, paths over the ten-year simulation horizon. For details see Golden *et al*, (1993). We simply simulated the Final Act requirements at face value, taking the average required changes in border protection and domestic subsidies and applying them to the base period levels. At first glance the results were quite modest. The price changes derived from the simulation were as follows:

● wheat	3.6%
● rice	0.9%
● coarse grains	1.9%
● sugar	7.9%
● beef, veal and sheep meat	3.7%
● other meats	0.5%

Where protection by the industrialised countries is low and/or their share in world trade is low, the final price effect will be low. This tends to be the case for rice and other meats. Where the opposite situation

prevails, in sugar and dairy goods, the price effects tend to be at the top of the range. For grains and red meats they were in the middle.

These are the final, 'steady state', effects. They measure the differences between the projected price levels absent from the Uruguay Round agreement with those taking account of the Round, after all the lags have worked out. These price changes are modest compared with some of the numbers which have been produced (see Page *et al*, 1991). But even these changes in the world market will be of real significance to particular countries. Take for example sugar. The Uruguay Round agreement is specifically devoid of teeth as regards sugar. The EU is the largest exporter other than Cuba, whose particular problems are acute and critical to the future of the world sugar market but are a separate issue from that of the Uruguay Round. But the EU is also a major importer. The suppliers are those African, Caribbean and Pacific countries who are listed in the Sugar Protocol to the Lomé Convention. They are allowed to export specific quotas of cane sugar to the EU, which means in practice the UK, and receive for these prices close to the EU intervention price.

The impact of the agreement on the EU's sugar régime will be considerably delayed. The EU can avoid major changes for at least four years, firstly, because it can use the price of imports of Protocol sugar as its base import price despite the fact that that was several times the world price at the time. The EU will then be able to impose safeguard tariffs on imports from the rest of the world. At any plausible world prices, these tariffs will be sufficient to prevent any forced reduction in the intervention price as a result of tariffication and the scheduled reductions in tariffs. Secondly, the targets for reducing the volumes of subsidised EU sugar exports will be radically eased by the admission of four new 'sugar deficit' members from EFTA (European Free Trade Association) and rising EU consumption. Thirdly, the flexible implementation over the six years of the reductions in the volumes of subsidised exports and expenditures on export subsidies means that, if, as is likely, the Commission decides to 'play by ear' in setting annually the intervention price and the levels of the A and B sugar output quotas, it should be able to avoid any significant cuts in these until the year 1999. Nevertheless, the eventual effects on the world sugar price, though they could be concentrated in 1999 and 2000, could be as much as 7 or 8%.

As long as the price paid for ACP (Africa, the Caribbean and the Pacific) sugar remains tied to the EU intervention price, the ACP sugar producers will experience cuts in their export earnings. We expect a reduction of EU intervention prices of 10-12%. On the other hand, the rise in world prices may allow certain ACP producers, including Jamaica, to sell on the world market. The most efficient estate factory in Jamaica, Worthy Park, can produce sugar at approximately 13-14

cents per lb. The production cost of the least efficient is now some 17-18¢. The current world price is some 12¢ plus, though this has been boosted by drought in some major growing countries. There will be upward pressures on the world price from the Uruguay Round agreement and 7-8% was suggested earlier. There will of course be many other factors affecting the world price. Increased output in Eastern Europe and the former Soviet Union will have a negative effect. On the other hand, the world price should be strengthened by the diversification out of sugar production of Cuba, which is the world's largest exporter but one that is generally uncompetitive at world prices. In any event the potential competitiveness of Jamaican sugar on the world market within several years will be given a significant, and perhaps critical, boost by the Uruguay Round.

For the first time in many decades, Jamaica may be able to sell sugar on the world market - at least that produced by its most competitive estates. Now it can sell only on the EU market where prices paid are similar to those received by EU sugar-beet growers. In due course, with more investment in plant and irrigation, some of the other estates may also become competitive in the world market. This could be critical for Jamaica, since there must be a big question mark over the future of special access that the EU grants to Caribbean sugar - or, indeed, other ACP agricultural products - beyond the present Lomé Convention which expires in the year 2000.

Table 4.3 shows estimates using the RUNS model of the effects on the self-sufficiency ratio for the EU, the US, and developed, developing and East European groups. It also gives the results for a number of individual countries and other country groupings. It shows that there will be significant reductions in the self-sufficiency ratio in most products in the case of the EU, the US and, largely as a result, the developed countries as a group. There will be corresponding increases in the ratios for the developing countries and, except for 'other' meats, the transition countries of Eastern Europe and the former Soviet Union.

When we look at the more detailed results for individual countries and country groups, we see that there will be major effects in China across the board. Output of dairy products and sugar, in particular, will be boosted in India and the low income Asian countries. The effects on Indonesia are substantial for most commodities. In the case of Africa, the production of dairy products in particular will be boosted. Part of the reason for the effects on Africa being generally small is the dispensations from liberalisation given to the least developed countries. So whether Africa will join in the movement towards liberalisation remains to be seen. At the moment, farmers in many countries of sub-Saharan Africa are the victims of policies designed to supply cheap food to the urban population.

Table 4.3  
Estimates of effects of Uruguay Round on self-sufficiency ratios

1991-93	Wheat	Coarse grains	Meat 'red'	Other meat	Dairy products	Sugar
European Union	-4.0	-9.7	-10.8	-0.5	-6.4	-17.8
United States	-14.3	-4.8	-2.0	-0.4	-6.7	-8.2
Developed countries	-6.6	-0.8	-5.7	-1.2	-6.7	-11.6
Developing countries	1.6	0.2	4.2	1.8	5.2	4.2
E.Europe and former USSR	0.3	1.2	1.3	-2.8	3.8	-2.2
Low Inc. Asia <sup>1</sup>	2.5	3.1	2.5	1.0	4.8	6.7
China	2.9	2.9	11.0	2.3	9.0	7.7
India	1.2	1.8	3.9	0.1	6.2	8.2
Upper Inc. Asia <sup>2</sup>	0.0	-8.2	-4.5	1.8	-1.5	-7.7
Indonesia	0.0	5.0	4.0	5.0	5.9	-3.4
Africa <sup>3</sup>	0.6	1.0	3.9	1.1	5.0	-2.1
Nigeria	-0.5	2.7	5.0	2.1	3.2	1.1
South Africa	1.1	-1.3	-0.7	-1.6	-1.2	-15.5
Maghreb <sup>4</sup>	0.1	-0.8	6.8	3.2	0.1	6.9
Mediterranean <sup>5</sup>	0.9	1.0	4.8	2.0	4.2	-2.7
Gulf <sup>6</sup>	-2.0	-1.0	-3.2	-12.5	0.4	-1.8
Latin America <sup>7</sup>	3.2	1.2	3.3	1.3	5.3	4.8
Brazil	-2.4	-4.2	6.5	3.8	8.5	11.6
Mexico	-2.4	-4.0	12.5	-3.4	4.9	6.9
Canada	3.3	1.3	-5.9	-2.9	-6.6	0.2
Australia, New Zealand	5.5	3.0	6.0	-0.5	-2.2	19.5
Japan	-3.4	-0.2	-8.7	-4.8	-11.5	-4.5
EFTA	-10.3	0.2	-15.1	-12.9	-6.8	-13.2

Notes:<sup>1</sup> Afghanistan, Bangladesh, Bhutan, Burma, Kampuchea, Korea (DR), Laos, Maldives, Mongolia, Nepal, Pakistan, Sri Lanka, Vietnam

<sup>2</sup> Brunei, Fiji, Fr. Polynesia, Hong Kong, Korea (rep), Macao, Malaysia, New Caledonia, New Hebrides, Papua New Guinea, Philippines, Singapore, Taiwan, Thailand, Tonga

<sup>3</sup> Sub-Saharan Africa less South Africa

<sup>4</sup> Algeria, Morocco, Tunisia

<sup>5</sup> Cyprus, Egypt, Israel, Jordan, Lebanon, Libya, Malta, Syrian Arab Rep., Turkey

<sup>6</sup> Bahrain, Iraq, Iran (IR of), Kuwait, Oman, Qatar, Saudi Arabia, UAE, Yemen (Arab Rep. of), Yemen (PDR)

<sup>7</sup> excluding Brazil and Mexico

Source: Author

Most frequently farmers are required to sell their output at arbitrary, and generally low, prices to marketing boards. Their incentives to invest in cultivating new land or increasing yields are minimal.

Table 4.3 shows that the Uruguay Round will encourage output of particular products in particular areas. For example in the Maghreb and the Mediterranean the main opportunities will come in meat, while in Latin America they will come in dairy products and sugar. For Latin America there will be also new or restored opportunities to export meat. Table 4.3 shows Mexico and Brazil with major increases in their self-sufficiency ratios, but other producers in that region will also gain. In some cases earlier export flows may be restored, for example trade between different parts of Africa in beef which has been destroyed by cheap beef exports from the EU.

If it is likely that the EU will reach a rough balance in the red-meat sector, if not indeed once again become a net importer, the question of grains is more controversial. Some people argue that after the fall in output brought about by the Set-aside programme, output will recover with steady productivity gains of 1-2% per year, and this will not create a problem in meeting Uruguay Round requirements as it will be competitive on world markets without subsidies. I find this unconvincing as it fails to take account of the greater opportunities for productivity growth in certain other regions, in particular the Third World and the former Eastern bloc. These results are based on one model and subject to wide margins of uncertainty. I do not present them as reliable predictions of the effects of the GATT Agreement, but simply as illustrative of the sort of changes that could occur when relatively small price changes are transmitted to the agricultural sector and are allowed to determine production decisions.

As I suggested before, attitudes to the farm sector in the developing countries are changing. There is now a much greater willingness to allow world price movements to influence farmers' decisions. The insulation of the agricultural sector from the outside world through taxes on exports, tariffs on imports, administered prices and other interventions in the market has in many countries been significantly reduced, and in others is being seriously examined. This means that farmers in the developing countries will increasingly have the incentive to respond to world price signals, both as regards the particular commodities they produce and the quantities in which they produce them. Some commentators (eg, Madden & Madeley, 1993) have argued that the developing countries as a whole, and the poorest in particular, will be damaged by the Uruguay Round agreement because they are net food importers and the price of food is likely to rise with the implementation of the agreement. This is true, but as I emphasise, the agricultural sectors in the developing countries will have further incentive to increase their own production if the rise in world prices is passed through. We calculate that the negative effects will be small. In the case of Africa, the poorest region and that most dependent on food imports, net imports of temperate foodstuffs will increase by 4.5%.

Some or maybe all of that negative effect could be offset by policies designed to encourage food production - or the elimination of existing anti-farm trade and tax policies. Incidentally, in the 1960s Africa was a net exporter of food.

Of course in the end, supply and demand under the Uruguay Round régime must balance. Aggregate agricultural sales in the EU, Japan and EFTA will be reduced, but that does not mean that farm incomes will necessarily suffer. That depends on the various schemes for decoupled assistance among which, as we have seen, the EU compensation payments and US deficiency payments schemes are included. It also depends on whether the farmers in the developed market economies can continue, or, in some cases, go back to, safeguarding their real disposable incomes through reducing input costs and raising labour productivity. They too, in a number of sectors may be able to sell without subsidy on the world market, as presently happens in some EU member states with C quota sugar.

### THE MOMENTUM FOR REFORM

The momentum for more reform is probably unstoppable. True, there are other factors such as the importance of extending membership to the countries of Central Europe - initially Poland, the Czech Republic, Slovakia and Hungary - which would be out of the question because of the budgetary cost to existing member states if the present CAP operating rules were to remain in effect. Germany will continue to press for this because it wants to Europeanise its responsibilities along its eastern border. But even without such special factors, the conviction that the rules that have governed the international trading system as far as industrial products are concerned should be extended to agricultural products - and incidentally, to the other main hitherto excluded textiles and clothing sector - has overwhelmingly won the day. Until the last few years the agricultural sector was, to use deliberately a French phrase, a *chasse gardée*, which could be translated as 'out of bounds' to the GATT and international rules in general'. That is no longer the case.

The new proposals for radical change in the CAP in an independent study *EC Agricultural Policy for the 21st Century* recently published by the European Commission are witness to the momentum for further liberalisation. True, the report was commissioned by DG II - the Directorate for Economic and Financial Affairs as opposed to DG VI, the Directorate for Agriculture in the European Commission - some years ago and the report was finalised, I believe, about two years ago. It has only now been made public. It proposes a flat subsidy to all EU farmers, unrelated to their output, which could be topped up at the member state level and is bound to be resisted. That smacks too much

of welfare. But it is consistent with the trend of a shift towards liberalising markets and treating income support as a separate issue - going beyond such policies as Set-aside which still represent major interventions in the market, even if on the supply side. But liberalisation will not be limited to the developed countries. As I have already argued, among the developing countries there is a new commitment to markets and to the role of price signals. After years of preaching by the International Monetary Fund and the World Bank, the Uruguay Round seems to have been the catalyst for their conversion.

The Uruguay Round agreement foresees the start of new negotiations on agriculture before the end of the six-year implementation period. The developing countries are likely to insist that the timetable is met and the negotiations are meaningful and far-reaching. Prior to 1947 the average tariff on non-agricultural goods was over 40%. After seven rounds of multilateral trade negotiations under GATT it was brought down to 5%. With the implementation of the Uruguay Round it will come down to 3.5%. The same sort of progress could be achieved in agriculture, only much faster.

## REFERENCES

European Commission Directorate-General for Economic and Financial Affairs (1994) *EC agricultural policy for the 21st century*. European Economy No 4. Brussels: ECSC-EC-EAEC.

Goldin, I, Knudsen, O & van der Mensbrugghe, D (1993) *Trade liberalisation: global economic implications*. Washington & Paris: World Bank & OECD.

Johnson, G D (1991) *World agriculture in disarray*. 2nd Edn. London: Macmillan.

Madden, P & Madeley, J (1993) *Winners and losers: the impact of the GATT Uruguay Round on Developing Countries*. London: Christian Aid.

Page, S, Davenport, M & Hewitt, A (1991) *The GATT Uruguay Round: effects on developing countries*. London: Overseas Development Institute.

Tyers, R & Anderson, K (1986) *Distortions in world food markets; a quantitative assessment*. Background paper for the World Bank's World Development Report 1986. Washington: World Bank.