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EC-US AGRICULTURAL TRADE RELATIONS: DO POLITICAL COMPROMISES EXIST?

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1. Introduction

The history of EC-US conflicts about the Common Agricultural Policy is long and rich in events. The US never accepted either the founding principles of the CAP or their implications. While some periods were rather quiet, sudden outbreaks of conflicts have been recurrent. Even if the US finally accepted that a protectionist CAP was the economic price to pay for the political gain of a united Europe, it could not live with the variable levy system and even less with its recent use of export restitutions on EC surpluses. Starting in the early 1980's, attempts to complete the CAP by a tax on fats and oils or by a ceiling on cereal substitute imports have triggered a swift retaliation by the US (Hathaway 1984; Tracy 1982; Petit 1985).

Naturally, the opposing views on agricultural policy reforms in the EC and the US have reached a climax in the GATT negotiations of the ongoing Uruguay Round. The basic position of the US is in favour of a complete elimination of farm support policies as long as they are linked with production levels, while the EC is keen on trading a commitment to a limited cut in price support for a rebalancing of its tariff structure in favour of imported feeds. Other GATT members are also players in that game, and the EC export refund system is the main target for complaints. In October 1989, the US made a new proposal for the transition period toward decoupled farm programmes, which basically required an elimination of export subsidies over 5 years and of other output-linked support policies over 10 years. Although defined in terms of policy instrumentation, this scheme of agriculture policy adjustment increases pressure on the EC; and a profound reform of the CAP is the actual target pursued by the US.

In this paper, we do not intend to review all the issues related to the EC-US agricultural trade conflict, which has attracted a large body of research (see Cathie, 1985; Curry, 1985; Moyer and Josling, 1990 for recent surveys). We should like however, to address three questions: (1) Why is the conflict so intense, while evidence exists that the size of interaction is real but not considerable? (2) Why is the EC reluctant to liberalise while the economic gains are large and, correspondingly, why is the US position led only by a quest for the welfare efficiency of free trade? (3) Last, can we reveal the actual policy objectives embedded in the current farm programmes, and by doing so identify areas for mutual agreement, i.e. for a treaty?

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In the first section we shall analyse three paradoxes in the EC and US positions in the current GATT round of negotiations. In the second section we shall present estimates of the relative political weights for various social groups affected by the current programmes. The resulting political value function will then be used to delineate areas for feasible compromises.

2. Three paradoxes in the EC-US agricultural trade conflict

At least three paradoxical observations can be made in the context of the EC-US agricultural trade conflict. The first deals with the apparent contrast between the tensions and the threats of generalized trade war often pointed out in the media on the one hand and the relatively limited interactions between the two powers as suggested by several studies on the other. The second is the surprising gap between the apparent economic gains and the reluctance of EC to undertake profound reforms. The third, which may be more subtle, is that the official position of the US is probably too bold to be really seriously feasible in regard to US domestic political conditions.

2.1 *The two big players can help or hurt each other, but to a limited extent*

Many studies have explored the implications of agressive measures taken by either or both partners. They all seem to conclude for a limited magnitude of the cross effects on *aggregate policy indicators* (budget, farm income, welfare). Anderson and Tyers (1983) have estimated the effect of retaliation by the United States in the form of a subsidy on its wheat exports. "*The adverse effects of such retaliation are much less for the EC than for the United States and are likely to be insufficient to force EC policy reform. Moreover, in per capita terms Canada and Australia are affected much more than the EC*". Paalberg and Sharples also note that "*liberalization of EC and Japanese grain policies would result in small net benefit to the United States*". Anania, Bohman and Carter have analysed the impact of the Export Enhancement Programme and find that the EEP "*has been able to increase US wheat exports. The cost of the additional exports has been lower prices in commercial markets and increased government costs. In addition, EEP has not achieved its goal of reducing EC exports because of the variable restitution system*". These authors estimate the resulting increase in variable subsidy cost for the EC to be only 103 million dollars, which is a small amount compared to EC outlays. Mahé and Tavéra (1987, 1988) likewise found that the two powers can hurt each other only to a limited extent and that domestic effects of policy changes are much larger than cross effects due to the absorption role played by world markets.

However surprising, the first paradox is consistent with the often mentioned argument that domestic forces are more important than external forces in shaping policies and their reforms. It may also be the case that, when the EC is making concessions, yielding to US pressure, it is in recognition for the wider economic and political power of the US, rather than in regard to the threat confined to the agricultural trade arena. In a statement before the House of Representatives, M. Mendelowitz (GAO) mentioned the diverging views on the efficiency of the EEP, but added that abandoning it would give the wrong signal to the EC, in the context of the GATT negotiations.

Another explanation may be that modelling exercises are very aggregated and do not specify bilateral trade flows, which are nevertheless important in some commodities. If the economic interests vested in particular commodities are not identified,

aggregate measures on budget and income do not reflect the real weight that producer groups may bring to bear on government. If this is true, then more attention should be devoted to the nature of political economy and the role of the various special interest groups that affect economic policy, as possible explanations for the large differences in the mode and intensity of public intervention in various commodity programmes.

2.2 Economic efficiency has a limited role in the design and the reform of the CAP

The literature on trade liberalization of the CAP generally concludes that economic gains are significant, and many competitors of the EC on the world markets have strived to display ample evidence that the EC as a whole should gain from liberalization of the CAP. Of course these welfare gains are only potential in the sense that losers from policy reforms would have to be compensated to accept the changes.

These welfare measures all assume that the various social groups involved (farmers, consumers, taxpayers) have equal political importance or weight in the political economy of government policy. But this is not the case in reality, as producers appear to have a larger weight than other groups. An example of this is the high level of support provided to EC farmers at the expense of taxpayers and consumers.

Moreover, in order more precisely to identify areas for compromise, it is necessary to disaggregate farmers into subgroups, as policy instruments differ markedly according to commodity programmes. If particular commodity groups have higher political weights, changes affecting these groups will be harder to implement, or these groups must be compensated to make the changes more acceptable. Aggregate efficiency considerations are therefore not adequate when it comes to understanding the EC negotiating position or to investigating some likely scenarios of agreement in the GATT negotiations. Moreover, in order to find a possible set of politically feasible trade compromises between the US and the EC, knowledge of the political weights of the various special interest groups in the policy process is required in order to devise a compensatory scheme that will induce them to accept a possible treaty.

2.3 The US position in the GATT is a tactical rather than a compromise position leading to a treaty

While the EC's proposal for trade policy reform clearly shows that economic efficiency is not seen as a feasible goal by European governments, the US position - total dismantling of border and domestic support - would suggest that the US government is led only by welfare efficiency considerations.

One possible interpretation is that US negotiators are convinced of the superior competitivity of American agriculture and that free trade and higher world prices would be beneficial to the country's trade balance, to farmer's income, and also to taxpayers. There is little doubt that - except when the dollar is greatly overvalued - the US crop sector is among the most efficient in the world, and it is widely acknowledged that agricultural policy liberalization would benefit the US grain sector. The various skirmishes which have occurred on world market outlets where the EC and the US compete for wheat exports confirm that view, and so does the US call for elimination of EC protectionist devices in the food and feed grain sector.

The evidence is much less obvious for soybeans and corn gluten feed exports, because the elimination of the support provided to the livestock sector in the EC and other OECD countries would reduce considerably the derived demand for feed, thus driving world prices down sharply (Mahé and Tavéra, 1988). The US policy makers have not paid great attention to the offsetting effects of reducing or eliminating support to EC livestock producers on the benefits expected from a liberalization limited to grain policy.

Moreover, other farm subsectors in the US would be badly hurt by a full-fledged trade liberalization. The sugar industry is the most obvious example, but the dairy sector too, which is almost as protected as its EC's counterpart, would be put under tremendous pressure. There is a debate currently going on in the US[1] about the potential of the dairy sector to become a more active exporter. Even if world prices for dairy products should rise sharply as a result of complete liberalization, the high nominal rate of protection granted to the milk sector in the US (about 100%) suggests that the US dairy industry would suffer from free trade.

Therefore, the US free-trade position in the GATT cannot be convincingly explained by pure economic considerations of comparative advantage alone. The US proposal may be easier to understand as a tactical position than as an indication of the final result it expects from the Uruguay Round, i.e. of the content of the treaty that they would be ready to sign.

As in the case of the EC, it is necessary to take into account the political economy dimensions of the US negotiating position in order to sort out tactical and feasible compromises. Moyer and Josling note that the US position has been tactical "in that the zero option provided an excellent negotiating position,.. shifting any blame for the failure of the Uruguay Round to the EC..." (p.192)

There are several ways to interpret the previous three paradoxes through the economic circumstances and the politics of agricultural policy making in the EC and the US. In this paper we do not intend to provide a comparative analysis of EC and US agricultural policy decision making, which has already been done by several of the cited authors. Our aim is, rather, to approximate a workable representation of the behaviour of both governments in the trade negotiations, and so to contribute to a better understanding of the actual underlying acceptable compromises for both countries.

In both the EC and the US, the level of support and the type of instruments differ widely according to commodity programmes, and some sectors are clearly easier to liberalise than others. A policy goal function of the government is a useful construct for interpreting the political economy of economic policy. This construct can be used to account for the relative weights of commodity groups and to assess their capacity to prevent some policy reforms while allowing some specified changes.

3. Political weights of commodity groups in the EC and the US

Several authors have modelled the objective function of government as an unconstrained maximisation of a weighted social welfare function over producer welfare, consumer welfare and taxpayers (e.g., Rausser and Freebairn, 1974; Riethmuller and Roe, 1986). However, taking the farm sector as an aggregate does not reflect the heter-

ogeneity of commodity programmes and therefore to the relative political strength of various farmer groups.

3.1 Revealing the political weights of various farmer groups

We report here only the results of a research devoted to the estimation of the political weights of seven commodity groups in the EC and the US. A detailed account of the approach is given in Roe, Johnson and Mahé. It combines the estimation of a Policy Goal Function (PGF), a model of EC-US agricultural policy interactions and game theory.

It assumes that in the reference period, the US and the EC have optimized their behaviour, i.e., the US government has maximised its PGF taking the behaviour of the EC as given, and conversely. Thus the base year is considered as a Nash equilibrium of the EC-US agricultural trade policy game.

Farmer groups are defined as commodity groups for two reasons. First, it is easier to model income effects of policies on various commodity producers than on various types of farmers. The latter option would require a model disaggregated according to types of farms. While this approach would be useful from a political organization viewpoint, such a model is not available. Second, commodity-specific farmer unions exist and are quite active in the defense of the interests of their members. It is expected that a large part of political pressure works through their channels, even if general purpose farmer unions do play a role in the protection of the interests of the sector as a whole and in the alleviation of the conflicts of interest between farmer groups.

There are eight social groups involved in the PGF. The commodity break down is the following: grains, protein animal feed, beef, dairy, pork and poultry, and sugar. Consumers are taken as a single group, which means that they are assumed to be indifferent as to whether a welfare gain results from a price cut on sugar or one on beef, for example. Taxpayers are also treated as a separate group. Of course there is some simplification, as these groups do not correspond to clear-cut partitions in society, and some individuals belong to several groups at the same time. They are not evenly affected by farm policy programmes however, and this is why our representation is expected to be meaningful.

The first apparent reason for expecting different political weights is the relative level of nominal protection granted to various commodity groups. Table 1 exhibits the NRP's (nominal rates of protection) at the producers' level in the EC and the US[2] in 1986. There are some similarities in the patterns of protection granted to various commodities in both countries. But the general level of support is smaller in the US than in the EC and it is particularly so for oilseeds products, beef and pork and poultry. The other main difference is due to the US deficiency payment system on grains, which puts the burden of support on the taxpayer and not on the consumer as in the EC.

The political value function is defined as a weighted sum of the gains that the various social groups derive from the policies implemented. The PGF is just a way to order different states of the economy. It is therefore defined up to a monotonic transformation. Hence the weights must be normalized to be easily interpreted, and in the present case, taxpayers are given a weight equal to one.

Table 1
Nominal rates of protection *), 1986

	EC		US	
	producer	consumer	producer	consumer
Grains	78	80	56	10
Protein feeds	95	0	10	0
Beef	75	75	5	5
Pork and poultry	20	20	0	0
Dairy	94	80	80	69
Sugar	170	170	120	120

*) Defined as 100 x (producer price - border price) devided by border price.

$$V = \sum_{i=1}^{7} \alpha_i \, T_i + T_t \qquad (1)$$

where the ã's are the political weights and the T's the transfers benefitting to the groups. Tt is the transfer to taxpayers or budget receipts. The list of producer groups (i=1 to 6) is given in table 1 and i=7 represents the consumer group. Since we assume that the base year 1986 was an optimal situation for both the EC and the US, the V function was at a maximum in this year; therefore the policy instruments were chosen so as to maximise V, and they verify the first order conditions for the PGF to reach a maximum, i.e.,

$$\partial V / \partial g_j = 0 \quad ; j = 1, ..., 7 \qquad (2)$$

where g_j is the jth policy instrument. Making use of (1) we get a set of seven equations in seven unknowns, the α's.

$$\sum_{i=1}^{7} \alpha_i \, \partial T_i / \partial g_j + \partial T_t / \partial g_j = 0 \; ; \; j = 1, ..., 7 \qquad (3)$$

By altering the policy instruments of each commodity programme and of the consumer group, a set of estimates for $\partial T_i / \partial g_j$ was obtained and (3) was solved for the α's. Table 2 shows the values of the weights derived from this process. An international trade model is needed to generate the $\partial T_i / \partial g_j$ as the EC and the US are large enough to affect world prices when their policies are changed. The impact on the budget ($\partial T_t / \partial g_j$) should therefore account for this terms of trade effects. Moreover some programmes, as for oilseeds in the EC and for many commodities in the US, do not isolate domestic prices from world prices, so that the welfare of consumers and of some producers (e.g. livestock) depend on world price changes.

Table 2
Political weights of various commodity groups and of consumers in the EC and the US

	US		EC	
	weight (α's)	rank	weight (α's)	rank
Sugar	1.56	1	1.57	1
Dairy	1.29	2	1.46	2
Protein feeds	1.23	3	1.32	4
Grains	1.15	4	1.34	3
Tax payers	1.00	5	1.00	6
Beef	0.92	6	1.32	4
Consumers	0.87	7	0.83	8
Pork and poultry	0.85	8	0.95	7

The relative size of the political weights does not depend only on the level of support, but also on the burden that the particular producer group is able to put on other groups. To see why, consider the simple case where there are no cross effects between commodity groups ($\partial T_i / \partial g_j = 0$ for $i \neq j$, i,j = 1 to 6). The equation for the jth weight amounts to:

$$\alpha_j \partial T_j / \partial g_j + \alpha_7 \partial T_7 / \partial g_j + \partial T_t / \partial g_j = 0$$

It turns out that for a given effect on the welfare of producer j ($\partial T_j / \partial g_j$), the weight α_j will be larger, the larger the effects on consumers and taxpayers in absolute value, as long as they are negative, which is true in most cases. In other words, a commodity group will have higher weights if the benefit it gets costs more to consumers and taxpayers. This approach could be extended to other commodity groups.

The weights in table 2 therefore reflect a richer information than the nominal rates of protection, as they depend on the type of instrument used to provide the income transfer to a particular commodity group. Take the dairy producers in the EC as an example. Not only do they benefit from a high support but, because of the net exporting position, the producer surplus is larger than consumer surplus, and tax payers must finance the export subsidies, hence a high weight to dairy producers in the EC.

The first noticeable observation drawn from the analysis is the smaller weight of consumers in the EC in comparison to the US consumers. This is consistent with the different types of policy instruments used in both countries for many products, particularly for grains, and with the smaller taxation of consumers of animal products in the US. The ranking of commodity groups is actually not so different in the two countries, with sugar and dairy producers at the top and pork and poultry producers at or near the bottom. Grain producers however have a smaller relative weight in the US than in the EC, and this is even more clearly the case for beef producers.

3.2 *A brief interpretation of the relative weights*

It is outside the scope of this paper to attempt a full explanation of the structure of the political weights of the various producer groups. A few remarks drawn from *public choice theory* are appropriate, however. Public choice explanations stress the importance of the cost of organization and, therefore, of the number of agents and the concentration in the industry. The relatively low weight accorded to consumers relative to taxpayers is consistent with this explanation. So is the case of sugar producers in both countries, as they are fairly few and as the industry is highly concentrated. Their ability to keep the high level of support is probably also due to the low budget cost of the sugar programmes in the EC and the US, which puts the burden mainly on the less well-organized consumers.

Budget cost or tax payers expenses are more visible than consumer surplus loss. Consumers must make costly investments in information if they want to show their loss and make their case in the democratic process. The budget cost on the other hand is obvious every year and attracts more scrutiny both from government and from public opinion. Therefore costly programmes are expected to be less sustainable. The fairly large political weight to grain producers as reflected in 1986 in both the EC and the US, is partly due to the historical rigidity of programmes which were not costly when they were initiated. The EC has not become self-sufficient in grains until the early eighties, and the US Target Price set in 1980 was not so far away from the world price, which has dropped in dollars in the early eighties. The stabilisers in the EC and the reduction in the US Target Price and the Loan Rate introduced since by the US farm bill tend to confirm this interpretation. To a large extent, the fairly high weight given to oilseed producers in the EC can be accounted for by a similar historical development, to which the low self-sufficiency of the EC in protein feed has contributed.

At first sight, the ranking of dairy producers is not so easy to explain by the concentration and cost of organization argument. There are here many producers, who yet manage to develop large political power. In the US however, the history of protection has its roots in the formation of market orders and agreements for dairy producers. This was partly stimulated by fairly large and well organized dairy cooperatives. The cooperatives provided an organizational structure that in fact served to lower the cost of coalition formation, i.e., the cost of forming groups of similar interests at the local level, thus making it possible subsequently to launch effective lobbying efforts at the national level. The market order and agreement structure and the cooperative structure also provided a mechanism to solve the free rider problem so that all dairy farmers would be taxed to support the cost of a lobbying effort. To a large extent this argument is also valid for the EC where cooperatives have been important actors in the dairy industry. The relatively low income of dairy producers generated by free market forces has also contributed to make the support programmes more acceptable to public opinion, at least in the past. Again the recently higher cost of the programme have led to supply control measures, with the all buy-out scheme in the US and production quotas in the EC. This shift of the burden on the consumer alone, and the vested interest in production rights, together are likely to keep the rank of dairy producers high in the scale for the near future. Beef producers in the EC are still, due to the complementarity between beef and milk in the EC, most of them dairy producers; hence their weight is similar to that of dairy producers.

The situations of pork and poultry producers in the EC and of pork, poultry and beef producers in the US are rather similar. Although the concentration in the industry is high, they have not been able to attract much support. The high elasticity argument proposed by Gardner for animal products in the US seems to be relevant. These producers are often well-off in Europe in spite of unstable prices, they are not viewed as typical family farm operators but rather as commercial farmers, and policy makers fear a rapid accumulation of surpluses if higher support were granted to the industry.

Even if a fully adequate political economy explanation of the relative weights is not yet available, they do not seem at odds with the intuition of policy analysis. It is now worth investigating the light they may provide on the GATT negotiations.

4. Feasible compromises between the EC and the US

Various stages of farm policy reforms were simulated for the EC and the US, both in unilateral and bilateral ways. These actions lead to impacts on policy indicators which can be presented in the pay-off matrix of a game as in table 3. In the GATT context the political pay-offs are used in preference to pay-offs based on classical welfare gains. On the basis of the matrix of political gains and losses in the EC and the US, feasible compromises in the negotiations are shown to exist.

4.1 Partial liberalization and decoupled compensatory payments

Four actions are investigated, with increasing degree of trade liberalization for both powers. More precisely, the possible actions simulated for the US are:

- (sq) The status quo of 1986;
- (bpes) Ban on producer and export subsidies; free trade in all commodities except beef, sugar, and dairy, self-sufficiency in dairy is followed while sugar prices and beef quotas remain at the status quo;
- (pft) Partial free trade; free trade in grains, animal feeds, beef, and pork and poultry; dairy and sugar policies remain at the status quo;
- (ft) Free trade; free trade in all commodities.

For the EC they are:

- (sq) The status quo of 1986;
- (bpes) Ban on export restitutions; *ad valorem* tariffs are used to attain self-sufficiency in grains, beef, pork and poultry, dairy, and sugar; price differentials, in percentages, between producers and consumers remain at the status quo; the farm price of oilseeds is unchanged;
- (pft) Partial free trade; *ad valorem* tariffs of 20 per cent are imposed on grain and beef, the oil seed cake support is reduced to 20 per cent above world market price; pork and poultry prices are leveled with world market prices; dairy and sugar prices remain at the status quo;
- (ft) Free trade; Free trade in all commodities.

The economic results are summarized in Table 3; the US chooses the row, the EC chooses the column. Before discussing the game matrix of the welfare gains, the key economic outcomes of the simulations are briefly summarized. For comparable experiments, the results obtained from the model are similar to those obtained from CEC. In general, liberalisation causes large increases in the world prices of grains,

Table 3
Welfare gains from policy reforms *) (billion ECU)

US policy action	EC policy action							
	sq		bpes		pft		ft	
	US	EC	US	EC	US	EC	US	EC
sq	0	0	0.3	6.4	0.4	30.	0.3	8.5
bpes	2.5	0.4	2.2	6.6	2.8	3.3	0.3	8.5
pft	1.5	0.1	-0.8	6.3	1.8	3.7	2.0	8.9
ft	3.0	0.9	2.6	6.8	3.3	4.7	2.7	8.8

*) The South-East number is the US welfare gain and the North-West is the EC's gain.

beef, sugar, and dairy, decreases in the prices of oil seed cakes and Feed Grain Substitutes (FGS), and smaller changes in the price of pork and poultry. Three factors determine these results: crop production shift in the US from grains to oilseeds, feed input substitution in the EC from oil seed cakes and feed grain substitutes (FGS) to grains, and lower feed input demand of beef, dairy, and pork and poultry producers in the EC due to the contraction of the animal sector.

The strict economic results would predict that both countries should move to free trade. Classical welfare efficiency[3] however, is not the only policy goal pursued by EC and US governments. Table 3 shows that (ft, ft) is a Nash equilibrium of this game; free trade is a dominant strategy whatever the other player does. If this game were realistic one would expect the positions expressed in the GATT to be far bolder than what we observe. Since they are not, governments most certainly have a more complex objective function and social group weights in the PGF must differ, as was shown in Table 2.

The games presented in Table 4 are more relevant for understanding the GATT round. The pay-offs in Table 4 (game one) are now the values of the PGF associated with each combination of actions taken by the EC and the US. Liberalization of farm policies does not appear likely at all if countries limit their margin of manoeuvre to the current policy instruments. Although each country should like for the other player to move towards free trade, it will suffer a political loss if it makes the move itself. Domestic policies again matter more than policies of other countries. Given the set of policy instruments used in the past, the prospect of an agreement in the GATT is bleak, especially if the PGF calibrated on the base year 1986 still reflects the political weights of social groups relevant for the 1990 situation.

Feasible compromises require the use of new policy instruments and Table 4 (game two) illustrates the outcomes of a liberalization combined with compensatory decoupled payments. Game two is derived from game one in the following way. Budget savings resulting from policy changes are used to compensate producer groups, the groups with highest weights being compensated first. There are not enough savings to compensate all producer groups, because of efficiency loss and because of the large share of the current policies burden being borne by consumers.

Table 4
Policy-Goal Function Values for Alternative U.S. and E.C. Trade Liberalization Strategies and Decoupled Payments

us\ec-action *)	Game One: Using 1986 Action Space			
	sq	ber	pft	ft
sq	0, 0**)	412, -1699	637, -2385	697, -5407
pft	-653, 299	-144, -1795	192, -1805	540, -4948
ber	-560, 517	-234, -1554	165, -1458	233, -4691
ft	-2075, 1020	-1472, -1433	-1329, -656	-877, -4409
us\ec-action *)	Game Two: Using Decoupled Payments			
	sq	ber'	pft'	ft'
sq	0, 0	412, 2057	637, -798	697, 16
pft'	1466, 299	1905, 1931	2071, -168	2606, 424
ber'	2216, 517	2484, 2242	2853, 354	2968, 640
ft'	1559, 1020	2099, 2255	2400, 1334	2600, 868

*) see text for definition of actions.
**) x, y is x = V86us and y = V86ec.

Game two shows that feasible compromises between the EC and the US exist if decoupled payments are used. The most preferred action coresponds to bpes, i.e, a ban on production and export subsidies in the US on grains and dairy and a ban on export subsidies with a return to self-sufficiency in the EC for grains, beef, pork and poultry, dairy and sugar (oilseeds being unaffected).

As the savings are not enough to fully compensate producers, decoupled payments make freer trade politically acceptable, but not full-fledged free trade. It is still politically necessary to keep some of the burden put on consumers, because of their low weights. Freer trade results, free trade does not.

4.2 Tariffication and rebalancing open avenues for a treaty

A new set of policy instruments was also introduced, based on the negotiationg position of the EC. Rebalancing implies trading tariffs on feed imports for a decrease in the support provided to grain and oilseeds in the EC.

This scenario is first explored on the basis of the oil seed sector only. Before implementing increasing levels of tariff on oilseeds and cakes, the EC gets rid of the crushing subsidy, and the support is only provided by the tariff. Table 5 illustrates the results of this scenario on both the EC and the US PGF's. When the EC abolishes the producer subsidy, world prices for oilseeds and cakes increase and US soybean producers benefit from this terms of trade effect, hence also the US grain in PGF. When the EC imposes increasing levels of tariffs, the US PGF decreases continuously, as the gains from the lower EC producer price are increasingly offset by the losses

Table 5
Impact of tariffication and rebalancing in oilseeds on the PGF's

	EC Tariff on oilseeds (%)								
	0	10	20	30	40	50	60	70	80
EC PGF	-200	60	220	295	310	280	190	170	-80
US PGF	305	210	140	70	3	-50	-100	-45	-90

due to the EC tariff. A tariffication at 40% or less leaves the US better off than in the status quo. Tariffication has a different pattern of effect on the EC's PGF. When the crushing subsidy is abandoned, the EC suffers a political loss, because the income loss of oil seed producers is larger than the tax payers' gain and because the weight of the former group is higher. When increasing levels of tariffs are implemented the EC's PGF increases and reaches a maximum at a 40 per cent tariff. Higher levels of tariff impose a larger loss on livestock producers and the PGF decreases.

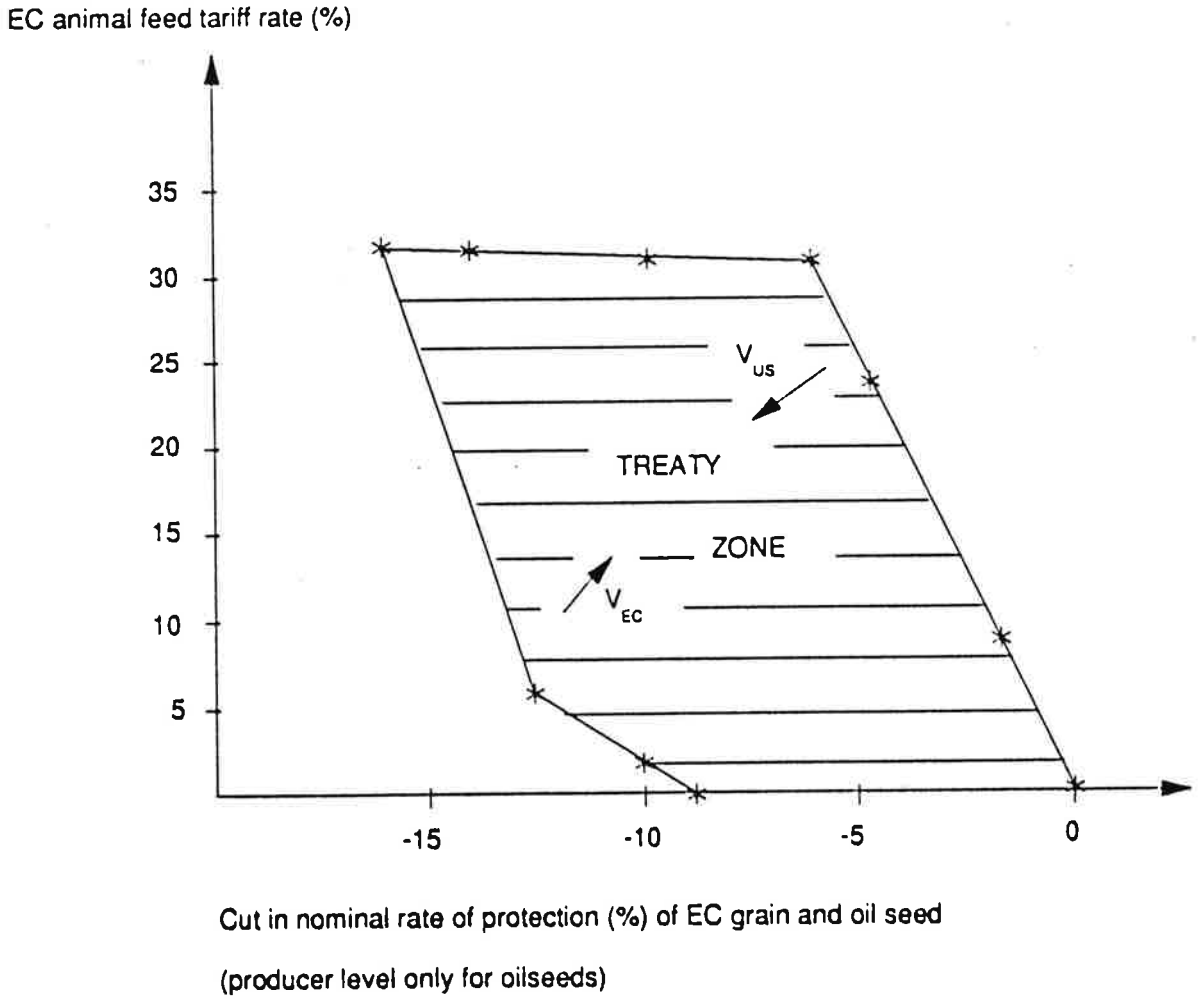

Figure 1. An EC-US Treaty zone based on Tariffication and Rebalancing

From Table 5 it appears that a tariffication of up to 40 per cent makes both the EC and the US better off in terms of the PGF. Tariffication and rebalancing do open areas for feasible compromises. But the change in the PGF are fairly small as compared to game two, so that the possibility for both powers to gain from tariffication and rebalancing is likely to be sensitive to the base year situation.

The domain of a feasible treaty was further explored by extending the rebalancing concepts to grains and to feed grain substitutes. A feasible treaty zone was uncovered where both the EC and the US would be better off than in the status quo. It is illustrated on figure 1. The EC tariff rates on imported feed are indicated on the y-axis and the decrease in nominal rate of protection on grains and oilseeds on the x-axis.

From the analysis of a rebalancing limited to oilseeds, we expect that the PGF of the EC increases in the north-west direction when support is less reduced on grains and oilseeds, while tariffs on imported feeds are increased at the same time. Clearly, the US's PGF decreases in that direction and therefore improves when we move toward the south-east. The left hand limit of the treaty zone corresponds to combinations of tariffs and support cuts which keep the EC indifferent to the status quo. The right-hand limit means the same thing for the US. Combinations within the treaty zone improve the political gains and therefore correspond to feasible compromises between the EC and the US, with a tariff range from zero up to 30 per cent and a cut in nominal protection of up to 15 per cent. Here again, as in Table 5, the changes in political gains are fairly small.

This investigation has shown that the political economy dimension is necessary to provide a rationale for the negotiating positions in the GATT and to solve the paradoxes mentioned in the first section. The EC is likely to move further towards liberalization than its early declaration in the GATT suggested, but new policy instruments are necessary. The US is unlikely to fetch complete trade liberalization in the GATT. Freer trade is likely, free trade is not.

There are obvious limits to the present investigation. Two may be mentioned. The reference year used, namely 1986, is somewhat exceptional, and the respective weights are not necessarily relevant for 1990. A sensitivity test was done however, showing that they are fairly stable. Still, the situation of markets and budget outlays has evolved since 1986 and the treaty zone relevant today may look different. Application of the 1986 weights to the 1988 base year confirms this change in the economic outlook, and shows that the domain of feasible compromises between the EC and the US has shrunk, so that a treaty seems less likely now.

Another caveat is in order. It is not certain that recipients of decoupled payments value one ECU from the budget as one ECU from market price support, since decoupled transfers will be harder to sustain in the long run.

To sum up, the outcome of the negotiations is uncertain, as both the EC and the US seem to be close to indifferent where the status quo in terms of political pay-offs is concerned. Feasible compromise based on compensation and/or on rebalancing exists however. Further exploration, with a game extended to the other OECD countries, does suggest improved feasibility of a treaty, so that some degree of liberalization within the GATT is altogether likely.

5. Summary - Conclusions

The international game played in the EC-US agricultural trade conflict cannot be explained only on the basis of classical welfare analysis which would predict free trade due to efficiency gains. A political value function is more relevant to the explanation of government behaviour. The various producer groups appear to have quite different political weights, in the EC as well as in the US, and the rankings of the various social groups involved differ in both countries.

The pay-off matrix of liberalization strategies expressed in terms of the PGF shows that both countries would prefer status quo to policy reforms. But when decoupled payments, compensating the most powerful producers, are made, some degree of reform is made politically feasible. However, if *freer* trade is likely, *free* trade is not.

There is also room for a treaty between the EC and the US based on tariffication and rebalancing. However, the political gains are small and recent changes in the environment have reduced the domain of feasible agreements.

Therefore both the EC and the US appear close to becoming indifferent to a treaty based on rebalancing. Compensation and decoupled payments seem to be the only avenue towards significant policy reforms likely to be traveled within the GATT.

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Notes

1. Agra Europe (London) n°1405.
2. Actual protection rates used in the calibration of the political weights (with the help of the Miss model, Mahé, Tavéra, Trochet) are shown, rather than the PSE's calculated by OECD. But they have a similar magnitude (when defined in the same way).
3. Classical welfare amounts to supposing that $\alpha_i = 1$ for all i in the PGF.