

Protection, support and market distortion are not necessarily the same things. Protection is defined on the basis of a difference between domestic and border prices. So long as protection changes incentive prices facing producers and consumers from their free-trade levels, resulting trade volumes will be distorted from free trade levels. Thus protection implies distortion. But, different policy instruments yielding the same levels of protection can lead to different levels of distortion. Similarly, protection implies support to the domestic production sector, at the expense of the consumer, taxpayer and trading partner. Again, different methods of protection for the same level can afford different levels of support. Concepts of protection and support involve considerations of price and cost differences from free trade conditions, where different definitions of the scope of free trade lead to different measures of protection and support. But market distortion arises from differences in trade volumes compared to free trade, albeit related to price and cost differences. Thus it should be possible to measure distortion directly through comparisons of trade volumes under different market and policy conditions.

Consider Figure 1, which represents a stylised representation of the EU cereals market. The present support price is shown as £190/tonne (equivalent to the new (MacSharry) threshold price of 155ecu/tonne). Five different policies are identified which could implement this level of price support:

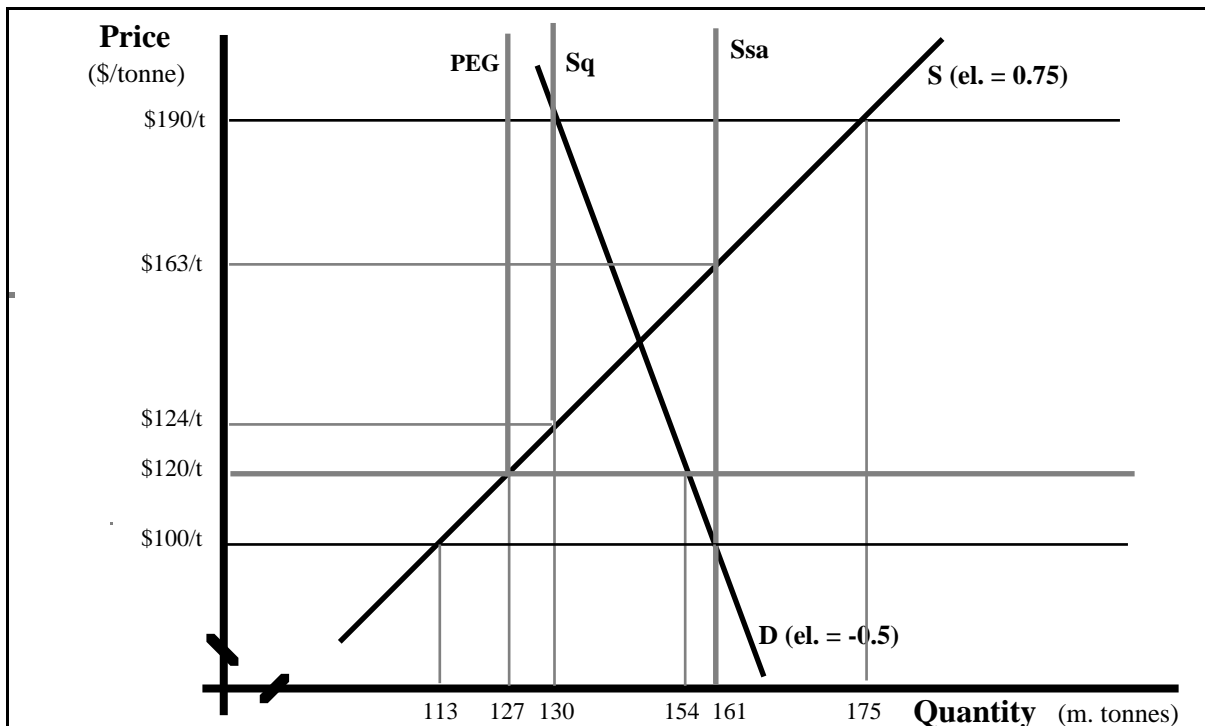
- i) an **export subsidy** (of £90/tonne against a current world price of £100/tonne) as a reflection of the “old CAP”;
- ii) a **production quota** of 130m. tonnes plus a prohibitive import tariff of at least £90/tonne, with both producer and consumer prices at £190/tonne, giving a quasi-supply curve as S_q , illustrative of applying the milk quota approach to the cereals regime, with the difference that the quota is set equal to domestic EC consumption in this case, as opposed to some higher level as with milk;
- iii) a **deficiency payment** or production subsidy of £90/tonne with consumer price set by the (distorted) world market price of £100/tonne¹, as a reflection of the ‘pure’ form of UK policy post 1947 and pre- EC accession;
- iv) a **set-aside programme** linked to price reductions and compensation, as an approximation to the reform agreement, where set-aside is assumed to reduce production by 8%, support prices are reduced to £120/tonne (100 ecu/tonne, the European Commission's expected free trade price) and compensation is paid to farmers to cover 100% of both price reduction and the set-aside requirement. The 'old' import levy/export refund system continues to apply between the world price and the new floor price of £120/tonne. Notice that it is assumed here that the total cereals area is constrained by the compensation/set-aside provisions, and that the compensation is such that at least this supply will be forthcoming - see below, giving a quasi-supply curve as S_{sa} (in contrast to the treatment of set-aside above);

1 Given that EU policy (not to mention other countries policies) distort markets by producing more and consuming less than would otherwise be the case, greater exports (or, equivalently, lower imports) can be expected to reduce world market clearing prices below their free-trade equilibrium levels.

- v) a "producers' entitlement guarantee" scheme (PEG)², under which support is fixed and limited to no more than that quantity which would be produced under free trade (ie at a price of £120/tonne), and paid direct to farmers from the exchequer, with all other market interventions removed.

Based on data presented in Table 1, Table 2 illustrates some key measures associated with these policy options, calculated on the basis of a supply elasticity of 0.75 and a demand elasticity of -0.5 at current quantities/prices, using linear approximations. Table 1 shows the effects of each policy option on world prices, which are treated here as endogenous. These effects are calculated as follows. The actual world price (£100/t) and the free trade world price of £120/t are taken as given and are also taken as implying a 'policy corrected' excess demand curve facing the European Community, given the reduction in exports from the community between the export subsidy policy and free trade of 72.3m.tonnes. For each of the policy options involving less than full liberalisation (production quota; production subsidy; set-aside/compensation), the slope of this implicit excess demand curve is taken as indicating the associated change in world prices. This is equivalent to assuming that other countries liberalise their policies (through multilateral negotiations) to the same extent as is implied in each of these policy options.

FIGURE 1 STYLISTED REPRESENTATION OF DIFFERENT SUPPORT INSTRUMENTS [EC, CEREALS]



² This was developed through the International Trade Research Consortium and is outlined in Blandford *et al.*, 1989, and further discussed in Harvey, 1991. See, also, OECD, 1991 and ABARE, 1990 for discussion of this option.

TABLE 1: BASE DATA AND PRIMARY ILLUSTRATIVE CALCULATIONS

	1.	2.	3.	4.	5.	6.	7.	8.	9.
	PW	Pp	Pc	S	D	X	PSE	NRP	TD
	(£/t)	(£/t)	(£/t)	(mt)	(mt)	(mt)	(prop)	(prop)	(mt)
Ex. sub.	100.0	190.0	190.0	175.0	130.0	45.0	0.47	0.90	72.3
Prod. Q	112.4	190.0	190.0	130.0	130.0	0.0	0.41	0.69	27.3
Prod. Sub	107.8	190.0	107.8	175.0	158.1	16.9	0.43	0.76	42
Comp/SA	110.5	190.0	120.0	161.0	153.9	7.1	0.42	0.72	34.4
PEG @ FT	120.0	190/120	120.0	126.6	153.9	-27.3	0.37	0.58	0.0
Free trade	120.0	120.0	120.0	126.6	153.9	-27.3	0	0	0.0

On this basis, the percentage Producer Subsidy Equivalents (PSEs) and Nominal Rates of Protection (NRPs) differ somewhat among the policy options considered (Table 1, columns 7 and 8). However, the usual method of estimating PSEs and NRPs treats world prices as exogenous. Had this methodology been used here, with the fixed and given world price at £100/tonne, all five policy options would be characterised as having identical PSE and NRP values, of 0.47 and 0.9 respectively.

Much of the technical debate within the GATT has been concerned with an appropriate measure of trade distortion. It is clear from this simple example that traditional measures do not discriminate between policies with different effects on trade volumes, and hence with different effects on world markets. That is, they do not discriminate between policies with different trade distorting effects. This point has not been lost on negotiators, who have been keen to adjust measures such as the PSE to account for trade distorting differences (for example, adjustments for supply control measures). It seems more sensible, and more direct, to try and measure trade distortion directly, as the difference between current (policy distorted) trade volumes and those which would occur under free trade.

Such a measure of trade distortion (TD) is shown in the ninth column of Table 1. TD is here defined as the difference between policy generated trade volumes and those which would occur under free-trade with no policy intervention (ie an import quantity of 27m. tonnes in Figure 1), expressed in million tonnes. Thus, the export subsidy option results in the EU exporting 45m. tonnes compared with the import of 27m. tonnes under free trade. Thus the total effect of the export subsidy is to deny the EUs trade competitors exports of 72m. tonnes, which is a measure of the trade distortion caused by the export subsidy option. Notice that this measure includes the distorting effects of the policy on both consumption and production and also includes directly the consequences of any supply control policies (as shown by the TD value for production quotas). In contrast, by concentrating on differences between producers prices and world prices, most other measures purporting to measure distortion actually only measure the potential distortion arising from intervention in the supply side of the market (assuming that there are no production controls in the case of the NRP).

When the TD measure is used as a basis for comparison, all the remaining policy options are less distorting than the export subsidy option (i.e. the pre-MacSharry CAP). The PEG option is (quasi) non-distorting *ex hypothesi*. The compensation/set-aside option would also be non-distorting under this measure if production were limited to 125m. tonnes, though here remains substantially distorting, given the assumption for these calculations

that the set-aside only reduces production by 8%. The treatment of the compensation/set-aside option here assumes that the compensation payments are seen by producers as deficiency payments, and thus determine their domestic production levels according to the floor price plus the compensation payments. In the event that these payments are perceived as fixed and independent of current production (as is arguably the intent of the reforms and certainly the implication of their acceptance as “green box” measures), then production levels would be determined by the new floor price (£120/tonne). In this case, the level of trade distortion (and subsequent calculations of costs and benefits) are more closely approximated by the PEG option, rather than those shown here for the compensation/set-aside option, with the exception of the tax cost (see below) which is a reasonable reflection of the tax cost of the MacSharry reforms. The reality, perhaps, will lie somewhere between these two extremes, depending on the extent to which the compensation payments are treated as fixed and invariant with production levels.

However, all policy options look alike under both the NRP (the simplest measure of protection) and the PSE (frequently suggested as a base Aggregate Measure of Support or AMS for GATT negotiations). The point of these illustrative estimates is that the policies are rather different both in terms of the support offered to the agriculture sector (measured by Producers Surplus Gain, PSG, Table 2) and also in terms of their trade-distorting effects, with which the GATT is primarily concerned.

Table 2 shows some indicators of policy effectiveness and efficiency for the policy options. The total PSE figures (in £ million) do differ between policies, since the total production levels differ, the quota, compensation/set-aside and PEG options resulting in lower levels of production than the other three policies. It is of passing interest to note that the EU's offer to GATT of reducing its PSE by 30% (basis 1986) compares with these illustrative figures which involve a reduction in total PSE of 25.7% for the quota option and 27.6% for the PEG option.

TABLE 2 ILLUSTRATIVE POLICY MEASURES.

	1.	2.	3.	4.	5.	6.	7.
	Total PSE	Prod. Surp. Gain	Tax Cost	Consumer Cost	Net Social Cost	Transfer Efficiency.	Transfer Cost
	TPSE	PSG	TC	CC	NSC	TE	TC
	(£m)	(£m)	(£m)	(£m)	(£m)	(norm = 1)	(norm = 0)
Ex. sub.	15750	10558	4050	9938	3431	0.67	0.32
Prod. Q	10082	9093	0	9938	845	0.90	0.09
Prod. Sub	14388	10558	14388	-1958	1873	0.73	0.18
Comp/SA	12800	11396	12317	0	921	0.89	0.08
PEG @ FT	8865	8865	8865	0	0	1	0
Free trade	0	0	0	0	0	0	0

The common measure of support is the producers' surplus gain (PSG), here measured in £ million relative to the free-trade price of £120/tonne. Under this measure, both the quota and PEG option score lower than the other policies (Table 2, column 2). In both cases, however, the PSGs for these policies could be adjusted upwards through an increase in the support price to offset the loss in PSG resulting from the quantity reductions. Notice, too, that the PSG for the PEG option is only 16% lower than that for the export subsidy,

and 13.9% lower for the quota option, in contrast to the total PSE measures for these policies (Table 2, column 1), as a result of the cost savings in production. The PSG for the Compensation/Set-aside option is higher than the other options because of the assumption that the set-aside area is fully compensated (by the difference between the support price of £190 and the free trade world price of £120 applied to the foregone production (175m. - 161m. tonnes) while the set-aside does not incur any costs for the producer in this analysis, (though may do in fact, which could be represented through a shift in the underlying supply curve to reflect these additional costs).

The tax cost of each policy option is here measured against the corresponding world price (Table 1, column 1). The tax cost is highest for the producer subsidy option, as would be expected, and nearly as high for the compensation/set-aside option (which ghosts the MacSharry reforms), while the export subsidy option (reflecting the pre-MacSharry CAP) is relatively tax-effective, though not compared with the quota option as specified here, where the production quota is restricted to domestic requirements so avoiding the need for export subsidies (in contrast to the present dairy situation in the EU).

The consumer cost (Table 1, column 4) is measured as the consumer surplus loss in the accepted fashion, again measured with respect to free-trade world prices. As such, it applies only to the first three options analysed here (the traditional CAP instrument of export subsidies and import taxes, the production quota and the producer subsidy options). While the last option is usually considered not to affect consumers, under the methodology used here, there is a consumer effect which results from the consequences of the subsidy on export volumes, and thus on world prices and domestic consumer prices. Measured against free-trade world prices, and recognising that consumption is higher under this option than under free-trade conditions (because market and world prices are lower), this results in a consumer surplus gain (negative loss) under this option.

The net social cost of the policy options is identified in Table 2, column 5 in £ million. This cost, as conventionally defined, is the sum of PSG, tax cost and consumer cost. Under this measure, the old CAP option appears the most inefficient. It should be noted that the compensation/set-aside tax cost includes an export refund (of £10.5/tonne) paid on the export surplus under this option of 7.1m tonnes (columns 1 and 6 of table 1). If the compensation payments are treated as fixed, then this export surplus will not materialise, and world prices will be higher (according to the assumptions used here), so the present figure may over-estimate the tax costs of this policy option. Nevertheless, the MacSharry Ghost option (as represented by Compensation/Set-Aside) shows a net social cost only marginally higher than the Quota option in this analysis.

Clearly, if a policy base other than free-trade were to be used against which to measure producer gains and consumer losses, then the resulting measures would be different from those illustrated here. The problem of choice of the appropriate base is slightly more subtle than the common issue of the choice of first or second-best as the policy norm. Given an objective of the Uruguay Round to eliminate (eventually) all trade-distorting support, the choice of free-trade is at least defensible as a potentially acceptable policy norm, even though such an objective seems impossible to achieve quickly or easily. While a more immediately relevant policy base might be the actual outcome of the Uruguay Round, it is beyond the bounds of these notes to assess the consequences for world prices. Furthermore, notwithstanding the actual outcome, it is becoming generally accepted within GATT and the new WTO that the agreement as far as agriculture is

concerned represents only a beginning of a continuing evolutionary path for international negotiation, the end objective of which remains the removal of distortions. In addition, it is accepted that the choice of policy base will influence the measures of support, protection and distortion, a fact which has not escaped negotiators.

The final two columns of Table 2 illustrate the efficiency and cost of making the transfers to producers under these policy options. Transfer efficiency relates PSG to total PSE, which is otherwise interpretable as the sum of the consumers and taxpayers cost of the policy, where the former is measured as total Consumer Subsidy Equivalent (CSE) rather than consumers' surplus. The PEG option has a TE of 1, *ex hypothesi*. Of the remaining options, the most efficient by this criterion is the production quota (perhaps explaining its attraction in previous reforms of the CAP, notably the dairy reform of 1984), *closely* followed by the compensation/set-aside option. The 'old' CAP is least efficient under this measure.

Transfer cost (TC) relates the total PSG to the net social cost of the policy, (defined as the net sum of PSG, consumers' surplus loss (CSL) and taxpayer cost of the policy) and hence measures the social cost per dollar transferred to producers. Once again, the quota, compensation/set-aside and, more so, the PEG options are substantially more efficient than the others.

While the analysis presented here is merely illustrative and partial, the general implications seem likely to be robust. Two points are worthy of emphasis. First, as Tables 1 and 2 demonstrate, many of the internal pressures on the CAP could be resolved with an insular policy development of production quotas limiting production to domestic consumption levels. Apart from the (probably severe) policing and implementation problems of such a policy, as evidenced already in the EU's dairy policy, the major force operating against such a policy direction is the international pressure for more liberal markets, including market access and expansion of market demand.

Second, the present compensation/set-aside policy appears in this analysis to be a step in an acceptable direction. Although its domestic acceptability within Europe was in doubt and many of the original proposals have been dropped or weakened, the new policy should lead to some reduction in trade distortion and some improvement in transfer cost. Does it go far enough? The illustrative calculations here suggest not from the international point of view. But hindrances to pushing it further depend only partly on the compensation payments being declared non-distorting. Of equal if not more importance are the problems of finding acceptable compensation packages (especially in terms of budgetary cost) for greater reductions in prices or production levels and thus of substantially reducing the trade distortions of the present policy. In simple terms, either the price reductions and/or the set-aside provisions are presently insufficient to eliminate trade distortion, but there are likely to be considerable difficulties in extending the present policy to achieve non-distortion. However, the PEG option does provide a possible direction in which the policy could be developed.

It should be emphasised that these illustrative calculations are *partial and comparative-static*. They ignore the potentially substantial effect that the history of protection and support has had on the structure and economic performance of the EU agricultural sector, and also the potential long-run and dynamic effects alternative policies would have on the sector. It seems intuitively plausible that the history of support has resulted in a shift of

EU supply curves to the right of where they otherwise would have been, through the encouragement and enabling of technical and structural change. Thus the free-trade scenario depicted here continues to incorporate distortions built into the EU supply sector through the history of support. While this might be defensible on the grounds that it is unrealistic to expect multilateral negotiations to incorporate recompense for such historical 'embodied' distortions, the final negotiating meetings between the US and the EU on oilseeds seem to have dealt with just such issues, albeit on a commodity restricted basis. Furthermore, the protection of the EU agricultural sector may have restricted some aspects of technical and structural change and hence prevented such a rightward shift in the underlying supply schedules.

Of potentially more importance are the possible future *dynamic effects* of the policy options. In particular, the PEG option has been labelled here as 'quasi' non-distorting. So long as the PEG payments are treated as independent of production decisions, then current production levels will be determined by current world prices. Hence it can be argued that the payments are non-distorting. Nevertheless, to the extent that they enable resources to remain in agriculture rather than be encouraged to leave, as they would be under genuine and uncompensated free trade, then the agricultural sector will be larger than without the compensation payments and hence remain distorted compared with free trade. It is difficult to be sure that such a larger sector would not also exhibit more 'competitive' supply conditions than would exist without the payments, thus distorting product markets as well as resource allocation. The same arguments apply to the production quotas and compensation/set-aside policy options.

However, so long as de-coupled compensation payments (whatever the method of delivery) do not increase the level of support (measured through PSG) compared with the present situation, then it can be argued: i) that distortion is clearly substantially reduced under these options than the border protection systems characterising the 'old' CAP; ii) that the compensation payments 'merely' preserve historic embodied distortion. Furthermore, once de-coupled support payments become accepted, there are good reasons to argue that: a) these payment entitlements should be tradeable; b) that they should be capitalised to lump sum entitlements. Both of these extensions would allow the release of 'protected' resources from the industry (while providing for the appropriate compensation), thus dis-embodimenting historic distortions.

Implications

The arguments above strongly suggest that further reform of the CAP is necessary, though the steps taken under the 1992 reform package, especially as far as cereals are concerned are a positive and substantial step in the right direction (namely, decoupling support payments from production decisions and re-coupling domestic prices to world price levels). It would be straightforward, at least in principle, to develop the area and headage compensation payments (already determined on the basis of historic cereal areas and yields and historic stocking levels) to a more completely de-coupled payment system along PEG lines. The current condition of payment (that crops should be planted and livestock kept) clearly maintains a connection to production decisions. Apart from inconsistency with the fundamental logic of the above analysis, there are two immediate

dangers associated with this continued coupling, argued below in terms of cereals, but equally applicable in principle to livestock.

First, the potential supply response to a substantial reduction in market prices (for cereals) should be sufficient to ensure European compliance with the GATT commitment to reduce subsidised exports by 21% over the life of the agreement. However, most of this potential supply response would be expected to occur through acreage reductions as cropped areas are switched to other (mostly grass) uses. This response is substantially discouraged by the necessity to plant in order to obtain the compensation payments. As a consequence, European production levels cannot be expected to fully adjust to the 'free-trade' world price and there continues to be strong possibility that production will not adjust sufficiently to reduce exports by the required amount.³ In this event, the EU will be forced to further reform the current policy, either by reducing the internal support price to world price levels, or by increasing the set-aside area, or by simply supporting the domestic market by building up intervention stocks. There are strong economic and political arguments against all these options⁴. The alternative of de-coupling support payments from the planted area thus has potentially strong attractions.

The second danger will appear in the medium term, specifically when the GATT agriculture agreement is reviewed in 1999 and as the entry of the CEE states to the European Union approaches. The passing of the present compensation arrangements as within the GATT "green" box, and thus non-trade-distorting, is widely understood to be a convenient fiction for the purposes of the current agreement only. Future agreements (which must be presumed to be on the planning horizon) will have the clarification of non-distorting measures at the top of their agenda, in which case the position of the present compensation payments becomes distinctly questionable. The definition of such measures has already been agreed in principle - that they should neither be related to product or to production. Furthermore, the entitlement of CEE producers to compensation payments is both logically questionable and subject to severe budgetary limit, further reinforcing the conclusion that these payments must become fully decoupled for the policy to survive.

Once fully de-coupled, a further development of the present compensation payments system becomes both possible and potentially attractive to both farmers and the union's exchequers. The apparent acceptance of the current payments as "compensation" rather than support strongly implies that these payments are limited and finite. Certainly, commercial agriculture and its associated input supply chain, including banks, are unwilling to treat these annual payments as indefinite. Nevertheless, the limit is not currently explicit, leaving both farmers and the Union's exchequer vulnerable and exposed to damaging uncertainty, in turn hampering necessary adjustments. However, a

³ Of course, the GATT commitment is to reduce subsidised exports, so that, should world prices strengthen sufficiently in ecu terms (as a result of either world cereal market conditions or foreign exchange market conditions) to reach the internal EU price, no subsidy will be necessary and the volume of exports will not therefore be subject to the GATT agreement.

⁴ French commercial (larger scale) cereal producers as well as those in the UK, for instance, are strongly opposed to any increase in set-aside areas. The remaining options have potentially serious implications for the European budget, either immediately or in the longer term. The English NFU have already come out strongly in favour of de-coupling.

future stream of fixed annual payments (as represented by the decoupled compensation payments) can easily be converted to a fixed lump-sum payment - the CAP 'bond' idea.⁵

Commonly, there are two major objections raised to this capitalisation proposal: a) that it would be too expensive; b) that it would deny the possibilities for requiring farmers to comply with other restrictions or practise more socially-desirable or environmentally-friendly production - the idea of 'cross-compliance'. Once the compensation payments are properly de-coupled, however, and thus fixed as annual payments per farmer, any future stream can be converted to an exactly equivalent capital value. The argument that bonds would be more expensive than the current (ill-defined) commitment to a stream of annual payments must mean that farmers would need to be offered a larger bond than a realistic capitalisation of the current commitment for them to forego the latter in favour of the former. There is no obvious logic as to why this should be the case. Especially for commercial farmers seeking to adjust their business to a more competitive basis and also to those seeking to retire from the industry, the potential advantage of an easily bankable certain capital sum as opposed to an uncertain and politically dependent future income stream would seem to be potentially highly attractive. At the very least, it would seem to be possible for member states in conjunction with the European Commission to design a system which would offer farmers the opportunity to chose a 'compensation bond' in preference to a continued entitlement to any further annual compensation payments (and associated restrictions on their production decisions). A tender system might be designed which would allow the Commission or its national agents (the Intervention Boards) to accept such choices only in those cases where there appeared to be some advantage to the Union's exchequer as well as to the farmers.

It might be asked how it would be possible for both farmers and the Union to gain from such a choice. Part of the answer derives from the joint gains to be made from the substitution of a certain sum for an uncertain stream on both sides of the bargain. In addition, at least some farmers are acutely aware of the political vulnerability of annual payments, are disturbed by the transparency of such payments, frustrated by their inability to utilise these uncertain payments to seriously assist their accepted need to adjust their business, and concerned that future entitlements will require yet more (potentially costly and certainly unwelcome) restrictions on their decisions. Given these drawbacks to annual payments, it is not necessarily irrational for them to consider substituting a lump sum of somewhat lower value than a capitalisation of current expectations of future annual payments. Equivalent arguments might also apply to a substantial number of farmers considering the retirement option.

Cross-compliance raises the very serious question of what these payments are for - support or early retirement/compensation packages. Where is the logic that suggests (still less supports) the implicit contention that past support levels, based on very different grounds from those now accepted and acceptable as justified public contributions to farming margins and profits, are necessarily equivalent, especially on a farm by farm basis, to the current reasons and requirements for ongoing support? There is neither economic logic nor political imperative to support this contention. While there may well

⁵ Popularised through Tangermann's suggestion to the European Parliament (Marsh *et al.*, 1991), also included in Commissioner MacSharry's original proposals for reform, for the dairy sector, in 1991 (see Appendix 1), and recognised as a strong possibility by the NFU (1995), p.12.

be strong arguments for some public payments to farmers as rural land managers for providing socially desirable but non-marketable environmental goods and services (as explored above), there is no reason to suppose that such payments will either equate to past support levels (compensation payments) either in total or, *a fortiori*, in their distribution among farmers. Other reasons for supporting farmers, *qua* farmers opposed to supporting those on low incomes, are now accepted as being unsustainable, as argued above. Thus, compensation payments must be seen as simply that - compensation for the removal of previous support commitments, justified as a) a political necessity and, b) as a necessary consequence of economic logic⁶.

There is an obverse to the cross-compliance argument, though seldom articulated. Conversion of an annual stream of compensation payments to a capital sum implies a substantial loss of control by politicians on the level and distribution of payments. They are faced with the substitution of a single distribution of *largesse* for a 'perpetual' stream. The logic of much public choice theory (see below) strongly suggests that politicians would be rational to resist such a change, since it denies them an important lever in their pursuit of political power. The counter-argument, however, is that simple (though effective) exposure of this motive in resistance to change should be sufficient to undermine it in the eyes of the (supposed) ultimate master of the politicians - the wider electorate. Unless there are substantial 'imperfections' in the political system, it should not be possible for a minority (parts of the farming community and their representatives) to dominate the majority⁷.

There is one further aspect of the compensation bond scheme worth noting here: that of the possible adjustment problems faced by the agricultural sector in moving from a protected to an unprotected state. It is commonly asserted that an adjustment or phase-in period is necessary (e.g., Ockenden and Franklin, 1995). For this to be properly argued, however, some consideration needs to be given to the potential adjustment problems faced by the sector. A major practical problem for farmers faced with this prospect is the uncertainty of what the 'new world' would look like, the obverse of which is the uncertainty about whether in fact it will ever be allowed to materialise. Neither of these uncertainties is materially reduced by continued assertions that a 'phase-in' period will be needed. Not only do such adjustment periods imply further opportunities for the policy direction to be reversed, but also the form of the adjustment package and the context in which it takes place may well give rather false indications of the state of the market once distortions are eliminated. In this sense, appropriate policies to ease adjustment should more properly involve definition of the 'target' free-market conditions (as in the current

⁶ The economic logic is as follows. Elimination of product support is regarded as a socially desirable change on the grounds that it is possible for the gainers (consumers and taxpayers) to compensate the losers (farmers) and for society to be better off as a result. Failure to compensate the losers, however, denies the change as being judged Pareto preferable, since there are some losers. However, the conversion of support payments to lump-sum transfers - the distribution of which is justified on equity rather than efficiency grounds - puts the final decision on who should be compensated and to what extent outside the clinical welfare calculus of neo-classical economics and firmly within the political choice arena, where the strict logic of the Pareto criterion no longer holds the ring.

⁷ While the history of farm policy may strongly suggest that such imperfections clearly exist, a deeper consideration of the reasons for continued inequitable and inefficient support of the farming sector lay in the tacit support of such a policy by electorates at large. There are strong reasons to suppose that this tacit support may now have fundamentally changed its character.

Commission's judgement about free-trade world cereal prices), which can then be 'defended' through internationally agreed strategies for market stabilisation (see below). Given such stabilised 'free-market' conditions, what then are the logical arguments for phased introduction of the new policy era?

Removal of price support can be expected to have substantial effects on the values of farm-related assets (whose prospective income streams have now been reduced) and on the costs of farm inputs (whose 'demand prices' have also been reduced). These effects can be expected to be anticipated rather rapidly in the more or less sophisticated markets for these assets and inputs, according to rational expectations theory. However, such input and factor market adjustments can only be delayed and (possibly) confused by a phase-in policy, for the same reasons as identified above for product prices. From this perspective, too, rapid adjustment to the new policy regime will assist adjustment in input and factor markets rather than making such adjustments more difficult and costly.

Elimination of price support in favour of a 'defended' free trade world price faces farmers (and also owners of fixed factors further up the input and factor supply chains) with potentially difficult production and farm or firm structure decisions, including whether or not to try and continue in business at all. These decisions clearly require time to execute. However, often the key impediment to taking and implementing these decisions is the requirement for capital funding both to undertake the necessary re-structuring (including the realisation of pension funds entailed in the values of the business assets) and also to 'buffer' the cash-flow imbalances necessarily entailed while the changes in business structure and physical production methods are made. It can be strongly argued, therefore, that provision of a lump-sum compensation payment may well provide sufficient, and potentially more useful adjustment assistance than a phased-in introduction period for the new policy.

Thus, the conclusion is that present product-related support systems should be completely de-coupled from production and that, once this is achieved, there is every advantage in converting such de-coupled support payments into lump-sum compensation or bond payments. Furthermore, following this policy strategy reduces the arguments in favour of a phased-in adjustment period and raises strong arguments in favour of rapid adjustment to the new policy regime. The size of this bond payment is indicated, as an upper limit, by the estimate of producer surplus gain associated with market protection policies under the current CAP (see table 2, above). This total annual gain could be converted to a lump-sum through conventional compounding arithmetic given assumptions about the appropriate time period and discount rate. In practical terms, some account would then need to be taken of the appropriate extent of compensation (which need not be 100% given political judgements about the necessity for full compensation in the light of equity (interpersonal comparison) considerations).

References:

- ABARE, 1990, *Proposed Strategies for reducing agricultural protection in the GATT Uruguay Round*, Discussion Paper 90-6, Australian Bureau of Agricultural and Resource Economics, Canberra.
- Blandford, D. de Gorter, H. and Harvey, D.R. 1991: "Farm Income Support without Distortions", *Food Policy*, **14** (3), 268 - 273
- Harvey, D.R., 1991: "The Production Entitlement Guarantee (PEG) option", Ch. 17, *The Common Agricultural Policy and the World Economy*, eds. Ritson, C. and Harvey, D.R., CAB International, Wallingford
- Marsh, J.S., Green, B., Kearney, B., Mahe, L., Tangermann, S. and Tarditi, S., 1991, *The Changing Role of the Common Agricultural Policy: The Future of farming in Europe*, Belhaven, London
- NFU, 1995, "Taking Real Choices Forward", Final Draft.
- OECD, 1991: *Reforming Agricultural Policies: Quantitative Restrictions on Production; Direct Income Support*, Paris
- Ockenden, J. and Franklin, M., 1995, *European Agriculture: Making the CAP Fit the Future*, Pinter, London, for the Royal Institute of International Affairs
- Tangermann, S (1991): "A bond scheme for supporting farm incomes", Chapter 10, *The Changing Role of the CAP*, Marsh, J., Green, B., Kearney, B., Mahe, L., Tangermann, S., and Tarditi, S., Belhaven, 95 - 101.