Are WTO rules an unreasonable constraint on the design of EU agri-environmental-climate policy?

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1. Introduction

Agri-environment-climate measures (henceforth AECMs) were introduced into the CAP on a voluntary basis in 1985. As the role of agriculture both as a contributor to but also as a solution for environmental problems became clearer, AECMs have been a mandatory element that Member States must include in their rural development programmes since the 1992 CAP reform, although it remains voluntary for farmers whether they want to enrol in them or not (Matthews 2013).

From the beginning, payments under AECMs were limited to the costs incurred or income foregone by the farmer arising from compliance with specific practices (in this contribution, I will refer to this as the compensation principle), though allowance was also made for the need to provide an incentive up to 20% of the value of the premium. In 2005, this incentive provision was replaced by a provision permitting the payment of transactions costs up to a value of 20% of the premium paid for the AECM commitment (this was later raised to 30% when the commitments were undertaken by groups of farmers or land managers). Regulation (EC) 1974/2006 specified that the need to provide for transactions costs should be determined based on objective criteria.

Policymakers and environmental NGOs have criticised the compensation principle as unduly limiting the attractiveness of AECMs and the incentive for farmers to enrol in them.[1] These criticisms have been based on both philosophical and practical grounds. It is argued that the payments should reflect the value obtained by society from the environmental benefits rather than the cost to farmers of providing them. Stating that payments were intended only as a compensation for income foregone does not give parity of esteem to the provision of public goods and ecosystem services other than the provision of food and biomass. Environmental groups have therefore called for payments to be based on welfare values rather than costs incurred.

There are also practical arguments. Some practices (e.g. conservation tillage) that are potentially beneficial for the environment and climate might not be funded because it was difficult to show they lead to additional costs for farmers. The compensation principle may not work where existing farming systems are important for the provision of particular ecosystem services (e.g., biodiversity in marginal farming areas) and where these farming systems are disappearing due to lack of profitability. Some have also argued that it is more difficult to implement results-based AECMs, seen as potentially more effective in achieving environmental outcomes in specific situations, when payments must be limited to costs incurred and income foregone.

The Commission has responded to these criticisms by referring to the rules set out in the WTO Agreement on Agriculture (AoA) that determine whether AECMs can be classified as a Green Box measure of domestic support and thus exempt from disciplines on the amount of support that can be

[1] The AGRIFISH Council conclusions on Commission's White Paper on 'The future of food and farming' in March 2018 stressed that "in addition to compensating for income forgone and costs incurred, effective incentives should be provided to farmers engaging in more ambitious environmental and climate practices going beyond the mandatory conditions".

provided. The intention of these rules is to limit the extent to which domestic support provided to farmers is trade-distorting and thus damaging to farmers in other countries. Is it the case that these rules stand in the way of incentivising the changes in farm practices that are necessary to achieve the objectives of the European Green Deal and the transition to more sustainable agricultural practices? Or are these rules a valuable bulwark and safeguard against not only the risk of trade distortions (which is the concern of the WTO) but also of the potential for green-washing (supporting the continuation of status quo practices by adding minimal environmental requirements) which should be a concern of environmental NGOs?

This issue has been raised again in the context of the eco-schemes that the Commission proposed as a new addition to the CAP's green architecture in its legislative proposal for the CAP post 2020. Eco-schemes can fund similar practices favourable for the environment and climate as AECMs do that go beyond the mandatory requirements set out in the enhanced conditionality for CAP payments, but a more flexible funding mechanism was proposed. Either payments can be calculated based on the compensation principle, or they can be made as an additional payment on top of the basic income support payment. This additional flexibility was particularly welcomed by environmental groups.

The Commission made clear that such eco-scheme practices should still be designed in accordance with Green Box criteria under the AoA. It concluded that where a practice targeted a land type (arable, grassland or permanent crops) or differentiated payments according to crop/land type, only compensation payments could be used. Examples of practices that it noted could only be paid as compensation were extensive grazing on permanent grassland, more ambitious crop diversification or rotation requiring a specific percentage of protein crops, no bare soil in winter on arable land, and situations where payments were differentiated according to land use (European Commission 2020). As many putative eco-scheme practices would be designed in this way, this ruling is seen as a severe limitation of the new flexibility.

This is the issue examined in this contribution. Section 2 looks at how compensation payments have operated in practice under EU rural development programmes, and how far they have constrained the design of AECMs. Section 3 takes up the philosophical issue of value payments rather than compensating for costs incurred and makes the case that the WTO rules, when given a proper interpretation, also make sense on environmental grounds. Section 4 concludes.

2. How does the compensation principle operate in practice?

The WTO Green Box is defined in Annex 2 of the AoA and lists domestic support measures in agriculture that are deemed to have no or minimal trade-distorting impacts, and comply with policy-specific conditions. The policy-specific conditions for environmental payments are set out in Annex 2, Paragraph 12:

(a) Eligibility for such payments shall be determined as part of a clearly-defined government environmental or conservation programme and be dependent on the fulfilment of specific conditions under the government programme, including conditions related to production methods or inputs.

(b) The amount of payment shall be limited to the extra costs or loss of income involved in complying with the government programme.

This paragraph envisages that, unlike the rules for direct payments to qualify for the Green Box, environmental payments may be linked to specific types of production or land use, but in return it requires that the payment is limited to the extra costs or loss of income involved in complying with the environmental programme. The interpretation of this principle in EU legislation and practice helps to shed light on the permitted amount of payment to be consistent with Green Box criteria.

Under the EU rules, the authorities calculate an average cost of supplying the ecosystem service as set out in the DG AGRI technical guidance (DG AGRI, 2014). "*AEC payments are based on standard costs and income assumptions which between them reflect an average cost / income situation…. In most cases AEC payments are based on standard costs calculations (which are often based on standard gross margin) and assumptions for income foregone resulting from the commitments made. As mentioned above, these costs and assumptions must be based on reliable, representative data.*" It goes on to note that "*The premiums for a given type of operation should be differentiated where this becomes necessary as a result of significant differences in regional / sub-regional conditions and in production practices. If an RDP does not propose such a differentiation, it must demonstrate that no such differentiation is necessary because conditions are sufficiently similar. This is necessary to avoid excessive under- / over-compensation.*" Thus, in principle, the managing authorities are expected to act as a discriminating monopsonist by setting different payment rates in relation to how 'easy' it is for a farmer to provide the given ecosystem services. If managed effectively, this system of discriminatory payments would effectively appropriate all the intra-marginal rent that would be expected to provide most farmers with an additional income.

In practice, Member States do not operate in this fashion. Payment rates are usually set based on a calculation of typical costs. While a Member State's calculation must be transparent and certified by an independent auditor, there is in practice some room for manoeuvre in the figures that are used. The Commission recognises that, as a result: "*Clearly, some farmers incur lower additional costs and income losses than those identified in the calculation and other farmers incur higher costs and losses. This is due to differences in the efficiency of individual farms. The first group of farmers will have a higher benefit from applying the AEC type of operation than the second group of farmers, as the costs and income loss of the second group will be covered by the premium to a lesser extent*." (DG AGRI, 2014).

The Commission guidelines allow a more lenient interpretation of the compensation principle where AECM payments are provided for the maintenance of existing beneficial practices where these are otherwise likely to be abandoned. In these cases the AECM payment can be used to maintain the beneficial practice by covering the opportunity cost arising from this approach (DG AGRI 2014). For example, assume that at current market prices and given the availability of other supports an upland farm is not viable and is likely to go out of production leading to the abandonment of land. To protect and maintain any ecosystem services that might otherwise be lost it is permitted, using the opportunity cost concept, to make a payment that effectively contributes a significant income stream to maintain the viability of this farm.

Compensation payments are also flexible enough to accommodate results-based payments. For the 2014-2020 programming period for agri-environment-climate measures (AECMs), the European Commission explicitly noted that results-based measures are not defined in terms of production methods or inputs as required by criterion (a) of Paragraph 12 and thus additional information is needed for the purpose of premium calculation (DG AGRI 2014). It recommended that premiums for results-based commitments should be based on the additional costs incurred and income foregone resulting from the farming practices that are in general necessary to achieve the results expected from these commitments.

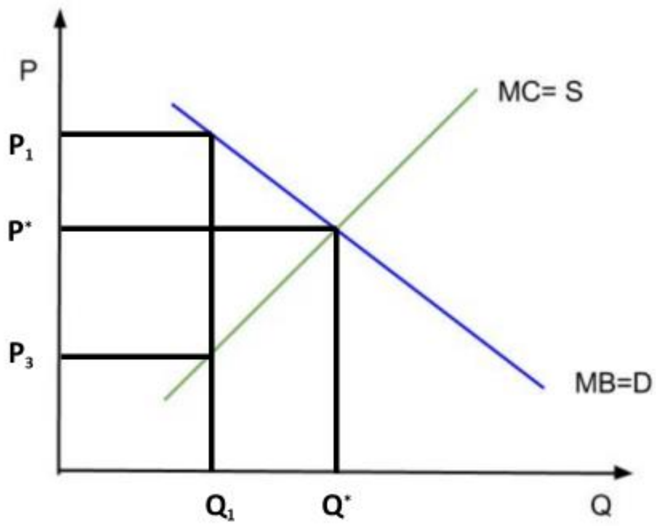
3. Value payments versus the compensation principle

In this section, we assess the criticism of the compensation principle that implies that farmers are not adequately rewarded for the provision of ecosystem services because the payments do not remunerate farmers for providing these services.

We first note that the compensation principle does incorporate the profit or income typically accruing from the agricultural activity that the environmental management is replacing. Even apart from any income accruing because the formula used to set the payment rates might ‘over-compensate’ for actual costs incurred, the compensation principle implicitly includes the opportunity costs including income foregone of alternative uses of the land. AECM payments also provide an income to the extent that farmers are themselves able to undertake some of the activities for which market-based costs have been included in the typical cost calculation (e.g., managing hedgerows or rebuilding stone walls).

The most significant counter-argument builds on the theoretical distinction between marginal and average costs, and the practical difficulties of establishing costs. Economists argue that the optimal provision of a public good such as an ecosystem services occurs where the demand (marginal benefit) curve intersects the supply (marginal cost) curve (see Figure 1). The collective demand for the ecosystem service is the vertical summation of individual demand curves. It shows the price society is willing to pay for a given quantity of the ecosystem service. The demand curve for the ecosystem service is downward sloping, due to the law of diminishing marginal utility. The supply curve is upward sloping, due to the law of diminishing returns. At the optimal point Q*, the marginal cost to a farmer of supplying the ecosystem service equals the marginal benefit. If there is no budget constraint limiting the quantity of the ecosystem service that the government can buy on behalf of society and the government purchases the optimal quantity Q*, then there is no discrepancy between society’s valuation of the ecosystem service and the *marginal* cost to farmers of supplying it. If the ecosystem service payment rate is set equal to the marginal cost of supply at this point (P*), those farmers who have a lower supply cost will earn an additional income.

Figure 1. The optimal provision of an ecosystem service



Optimal quantity of the ecosystem service:
The optimal quantity occurs where MB = MC

If funding for the environmental scheme is budget-constrained, then the quantity of the ecosystem service that can be purchased shifts to the left, to Q_1. At this quantity, there will be a discrepancy between the public's marginal willingness to pay and the farmers' marginal cost of supply. The assumption behind the compensation principle is that the payment rate farmers receive will be P_3 and the total budget will be the rectangle formed as the product of the payment rate and the quantity of ecosystem service purchased. Advocates of a value-based payment rate in this scenario would propose a payment rate equal to P^* or even P_1. This might be because it is seen as 'fairer' to a farmer to remunerate the service at the price society is willing to pay for the limited amount on offer, or because it is believed that it is necessary to pay this price to persuade farmers to enrol in the scheme. If either option were chosen, this would require a further reduction in the volume of ecosystem services that could be financed if the overall budget were to remain unchanged.

The main message to take from this analysis is that the only reason there might be a difference between a value-based payment and a compensation-based payment is because the authorities do not have sufficient funding to purchase the optimal quantity of ecosystem services. If the purpose of the scheme is to secure the provision of ecosystem services, then it would be paradoxical and counter-productive to seek at the same time to pursue a second objective, namely, support of farm income. A value-based payment, in these circumstances, would simply 'dilute' the effectiveness of the programme in purchasing ecosystem services and result in even fewer ecosystem services being provided. If the budget to purchase ecosystem services is fixed, the greater the share of the budget that is directed to increasing farm income, the smaller the volume of ecosystem services that can be purchased. From this perspective, the compensation principle acts as a guarantee that, with constrained budgetary funds, the maximum amount of ecosystem services can be purchased.

In practice, the positions and slopes of the marginal benefit and marginal supply curves are not known, and thus the optimal quantity and payment rate cannot be determined *a priori*. One way to get around this is to invite farmers to reveal their preferences through a reverse auction. Under a reverse auction, farmers or groups of farmers and landowners are invited to submit a bid which they are willing to accept to provide a specific amount of ecosystem services. The managing agency ranks the bids and selects those on a scale of cheapest to dearest until the total available budget is exhausted. The marginal bid price is then paid to all successful applicants. Such a mechanism was expressly provided for under Regulation (EC) 1698/2006 where it was stated that "*Where appropriate, the beneficiaries may be selected on the basis of calls for tender, applying criteria of economic and environmental efficiency".*

From our perspective, this enables the precise point P_3 on the marginal cost curve (the supply curve) to be determined that ensures both that the environmental budget provides the maximum volume of ecosystem services, and it is guaranteed that sufficient farmers find it attractive to enrol in the scheme. An interesting research project might compare the payments to farmers under a reverse auction scheme with those established under the conventional average costs mechanism to assess whether the latter mechanism tends to over-or under-compensate farmers for the supply of ecosystem services.

4. Conclusions

This contribution examines how payment rates should be set when farmers enrol in AECMs or the new eco-schemes. The issue is moot because the new CAP legislation allows for two alternative payment mechanisms for eco-schemes. One is based on the familiar principle of compensating farmers for costs incurred and income foregone, as used in AECMs, and the other is a more flexible addition to the basic income payment. The Commission has stated that Member States have to justify the level of the annual payment in relation to needs identified, the ambition of targets set in their CAP strategic plans as well as the ambition of the practices proposed under eco-schemes (DG AGRI 2020) but there are no constraints or criteria set out in the legislation itself.

The Commission has also insisted that the measures funded by eco-schemes must be compatible with the criteria of the WTO Green Box. It has interpreted this to mean that where an eco-scheme measure targets a particular land use or type of production, only the compensation mechanism can be used. Many environmental groups see this as an unreasonable constraint on the design of EU agri-environment-climate policy. This contribution argues that this is not the case, and that adherence to the WTO criteria provides an important safeguard against potential green-washing.

A review of the Commission's guidance on applying the compensation principle shows that many of its perceived limitations are not in fact constraints. The compensation principle does permit remuneration to farmers for the services provided, it is flexible enough to accommodate results-based payments, and it allows for whole-farm payments where these are necessary to maintain farm viability to ensure the continued provision of particular ecosystem services.

Environmental budgets are always limited. It is therefore important that these budgets stretch as far as possible to achieve the greatest environmental impact. In purely economic terms, this means finding the point on the marginal cost supply curve that maximises the quantity of ecosystem services delivered for the given budget (this is point P_3 in Figure 1 above). To the extent that the measure also tries to achieve other objectives (e.g., providing pure income transfers, in addition to remunerating the provision of ecosystem services) the environmental impact will inevitably be diminished. The supply curve for ecosystem services cannot be known precisely, so identifying the right level of payment can be more of an art than a science. I argue that the compensation principle, when properly interpreted and implemented, is more likely to lead to a payment level closer to the theoretical optimum than simply leaving the payment level unanchored and more vulnerable to rent-seeking behaviour.

References

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