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Agri-environmental Policy in the European Union: Who's in Charge?

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Kathy Baylis*

Assistant Professor, Food and Resource Economics Group
Agricultural Sciences, 341-2357 Main Mall
University of British Columbia
Vancouver, BC, Canada, V6T 1Z4
(604) 827-5081
kbaylis@interchange.ubc.ca

Stephen Peplow

M.Sc. Student, Food and Resource Economics Group
University of British Columbia

Gordon Rausser

Robert Gordon Sproul Distinguished Professor
Department of Agricultural and Resource Economics
University of California at Berkeley; Giannini Foundation

Leo Simon

Adjunct Professor
Department of Agricultural and Resource Economics
University of California at Berkeley; Giannini Foundation

www.catrade.org

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1. Introduction

European Union (EU) agri-environmental programmes (AEPs) represent a significant step in the region's efforts to decouple agricultural output from production and export subsidies. While AEPs comprise only a small share of EU agricultural support, they have two possible external impacts: 1) the composition of the EU's imports and exports may change as their producers become more market responsive; and 2) the WTO's Green Box (subsidies considered minimally trade distorting and hence not disciplined) may become increasingly contentious. Our concern is with the drivers of AEPs in the EU and their implications for Canada.

2. Brief History

AEPs were introduced in the 1980s on a piece-meal and *ad hoc* basis. They became a significant and integrated part of the Common Agricultural Policy (CAP) in the Agenda 2000 reforms, which divided the EU agricultural budget into two pillars: Pillar 1 - that funds traditional price support programs; and Pillar 2 - that pays for the Rural Development Regulations, allocations made by each member-state towards the development of its rural areas. Pillar 2 payments include the AEPs. Rural development regulations and AEPs are cost-shared by members with Brussels, and members are at liberty to allocate funds within rural development programs as they wish. As a result, there is a large variance in the number and cost of these programmes among members. Producers are not required to cost-share.

EU agri-environmental policy has been directed both at discouraging the negative externalities resulting from agricultural production and rewarding the production of public goods. Organic farming, for example, is considered less intensive and therefore a more "nature friendly" form of production; a subsidy for converting to organic farming is the only AEP measure common to all member-states. European taxpayers seem to be demanding both organically grown products and exhibiting a willingness to pay for the increase in biodiversity which accompanies organic production.

The EU is also particularly concerned about land-abandonment in southern member-states such as Spain and Portugal, and also in some wealthier member-states where agri-tourism is economically important, such as Austria. To halt abandonment, farmers in borderline areas receive subsidies which are large enough to keep them on the land and cultivating it. A requirement is that the land be maintained in good agricultural condition, which precludes afforestation and the loss of scenic upland pastures. Other available AEPs are designed to preserve rare animal breeds, provide rights of way for ramblers, and to train young farmers.

AEPs are not the only form of incentive for making agricultural production more environmentally friendly. Cross-compliance with environmental regulations has been compulsory since 2005, meaning that farmers receiving Pillar 1 money must use good farming standards on all of their land. As virtually all EU farmers receive Pillar 1

subsidies, this has meant a general improvement in environmental standards throughout the EU.

3. European Motivation Behind Agri-environmental Programs

What are the motivations behind the EU's adoption of AEPs? Is AEP uptake driven by concerns over pollution, by politics, or by both? An understanding of motivation helps to answer other questions, such as whether or not AEPs are negotiable in the WTO as a part of Green Box reforms and if these programs will be expanded in the future.

We suggest there are four possible motivations for AEPs and that our analysis can best be understood by viewing the results through a "lens", with each lens representing one of the four possible motivations: 1) cynical lens; 2) budgetary lens; 3) green demand lens; and 4) pollution lens. It should be understood that a combination of lenses is not only possible, but probable.

Canada and the United States have made no secret of their concerns over EU agricultural production subsidies on the grounds of their trade-distorting effects. Programmes which make use of the Green Box to transfer funds to farmers may be seen as the EU's response to such concerns. The first two lenses present AEPs as a clear result of a political bargain, whereas the second two project AEPs as efficient market interventions. The **trade lens** views AEPs as converted price supports, the implication being that the agricultural lobby was firmly behind their introduction. The second explanation is provided by the **budgetary lens** - in the 1980s the EU was almost insolvent because of the costs of agricultural subsidies, and some change was inevitable, particularly in light of the EU expansion. The view through the budgetary lens is that AEPs are primarily a response to the EU's fiscal concerns, and that the European Commission garnered support from environmentalists to reduce direct price supports. The important difference between the trade and budgetary lenses is not the value of the subsidies being paid to farmers, but its intention. The trade lens takes the continued high cost of European agriculture as proof that the agricultural lobby has maintained its influence (and would therefore be reticent to accept further cuts in payments) while the budgetary lens implies production quantities are being reduced, and AEPs are a way to make output cuts more politically palatable by leveraging support from environmentalists. The third explanation is **green demand**: EU taxpayers might prefer a more aesthetically pleasing countryside and members are responding to this demand. Under this interpretation AEPs are designed to reward farmers for their valued but non-marketed joint production, for example enhanced biodiversity, the sight of sheep grazing on Alpine pastures, and the preservation of rare breeds of domesticated animals. The fourth lens is **pollution**, where AEPs are viewed as reducing agriculture's negative externalities, such as nutrient run-off and spray-drift from agro-chemicals.

4. Results of Analysis

Our analysis attempts to explain the factors that influence the fraction of each member states agricultural subsidies that go to AEPs, and by so doing, try to infer which of the above lenses does a better job of explaining the source of AEPs. Specifically, we try to explain the factors influencing a member state's AEP receipts from Brussels divided by that member-state's total agricultural receipts from Brussels. The explanatory variables are designed to capture agronomic, demographic, political and economic factors. To reflect negative externalities we include fertilizer and pesticide use per hectare, and to capture intensity, irrigation per hectare of farmed land. Demand for positive externalities is represented by the amount of domestic tourism, and an index representing how well the country has integrated environmental rules into its legislation. The strength of the farm lobby is measured by lagged agricultural expenditures. Our hypothesis is that if AEPs are meant as a substitute for traditional agricultural subsidies, those regions who have had the highest levels of subsidies should have the highest rate of converting those subsidies into AEPs. The percentage of the population living in rural areas, and the percentage of the workforce in agriculture also help to capture the strength of the agriculture lobby. Cross-compliance with environmental regulations was not compulsory during the period of analysis. We use a before-and-after variable to measure the effect, if any, of producers demanding more agri-environmental funding as compensation for undertaking more environmentally friendly production practices. Political variables such as the percentage of seats elected using proportional representation is used to represent the voice of environmentalists, and whether MEPs are elected regionally (as opposed to nationally) is used to represent the voice of agriculture and rural interests.

We find there is evidence that the stronger the agricultural lobby, the greater the demand for traditional price supports, and the greater the resistance to converting those supports to AEPs. However we also find that those countries that are spending the most on price supports are also converting a higher percentage of their expenditure to AEPs, perhaps providing evidence of AEPs being compensation for the loss of production subsidies.

Unsurprisingly those members with "green credentials" spent a higher proportion of their total agricultural budget on AEPs. For example, those member-states in which environmental concerns are given voice through the use of proportional representation spend proportionally more on AEPs. Further, those countries that have done the best job in integrating other environmental rules into their (non-agricultural) legislation are also spending the highest portion on AEPs.

Member-states with the worst pollution problems do not spend the most to address these problems. At the same time, member-states with the most intensive agricultural systems do not spend the most to reduce pollution from agriculture. Interestingly, the use of cross-compliance is negatively correlated with the percentage of AEP expenditure. This result may be evidence that the environmental restrictions on Pillar 1 production subsidies (effectively a stick) are acting as a substitute for AEPs

(which act as a carrot). In any case, it is clear that AEPs themselves are not going to those areas with the most significant pollution problems.

5. Results in Terms of the Four Lenses

As we have noted above, the four 'lenses' are employed to illustrate possible motives for the use of AEPs. From the above results, we find that the lens which receives the most support is the **green demand** lens, indicating that taxpayers in the EU are beginning to see agriculture not only as a source of food and fibre but also as a provider of the positive externalities of agriculture. Conversely, there is little support for the **pollution** lens. The fact that the green demand lens provides a stronger result than the pollution lens implies that taxpayers prefer (or are more aware) the positive externalities of agriculture to reducing agriculture's negative externalities. The pollution lens shows that the stick of cross-compliance is having some effect, but that AEPs are not going to the areas with the greatest need for them. For example, subsidizing a highland pastoralist has little effect on pollution levels because the pastoralist is unlikely to be polluting very much anyway, and is equally unlikely to be able to reduce pollution. Meanwhile the heavy polluters continue because their higher profit margins enable them to be less reliant on AEPs for financial support. A similar view is revealed by the budgetary lens, showing that the EU may have unwittingly created a second claimant group. In other words, instead of changing the production techniques of its heaviest polluters, the EU has created a new class of claimants---such as the highland pastoralist---who offer little in return for the money. The **trade** lens receives mixed support. Those countries which are spending the most on price-supports are also converting a higher percentage of their expenditure to AEPs. Thus it is possible that AEPs are being used as compensation for loss of price-supports but it is not clear that the 'loser' is in fact the one receiving the compensation. Further, as indication that the agricultural lobby is not the driver behind AEPs, we find those characteristics associated with a stronger agricultural lobby lead to a decrease in AEPs. This result implies that the agricultural lobby has greater demand for traditional price-supports, and hence greater resistance to converting these supports to AEPs. This is intuitively correct: a well-entrenched, productive and highly-capitalised agricultural sector is likely to prefer this form of funding compared to that which supports adoption of lower-yielding technology, such as that funded by AEPs. These results are consistent with the **budgetary** lens, assuming the European Commission is using the AEPs as a means to reduce the budget, garnering support from environmental groups while trying to balance different farm groups against each other.

6. Relevance to Canada

Our results show that the green taxpayer has apparently gained influence at the expense of the agricultural lobby. This should not be a surprise as there is anecdotal evidence for this shift, such as demonstrations against the planting of genetically-modified crops, and the well-documented turning against conventional agriculture as a result of the food scares that took place during our study period. It seems that the European Commission has used this shift to enable a transfer of funds from price

supports to less distorting forms of agricultural subsidies such as AEPs. It is now the taxpayer rather than the consumer who is paying for the subsidies, and the process of subsidy is now more transparent or at least, less opaque. As an agricultural exporter, Canada would presumably do well to encourage this shift, and therefore not place too strong a restriction on the use of these forms of green payments, especially as the growing strength of the environmental movement implies that external attempts to roll back AEPs may be opposed.

There are however two sources of concern. First, the AEPs are not going to the same farmers who originally received price-supports, and thus the EU has effectively created a new claimant group. This result has two implications. First, it will be hard to use AEPs to compensate those producers receiving CAP subsidies for further reductions in domestic support and second, if AEPs do become of concern, it will be difficult to remove them. The second concern is the current lack of targeting of these programs. The funds do not seem to be directed at the regions with the most severe environmental problems. This provides an opportunity for the EU's trading partners to encourage increased targeting of these programs, which has the potential to increase their effectiveness at producing environmental goods while limiting any remaining production distorting outcomes they may have.

7. Conclusions

Our results show that while there is evidence that AEPs are meeting demands from green consumers in the EU, they are not going (exclusively) to the same group that received the price supports. This limits their effectiveness as compensation and raises concerns about the creation of a new claimant group. However, it is likely that AEPs reduce trade distortions because they do divert some funds from production subsidies and encourage the adoption of technology that has lower yields. In addition, AEPs are a halfway-house between production subsidies and no subsidy at all, and so those members that have been most reluctant to liberalize their agricultural markets may find them a useful stepping stone. For these reasons, international attempts to roll back AEPs are likely to be counterproductive.

It is possible that the EU might attempt to expand AEPs or Pillar II funding in general. Although not explicitly tied to output, these programs are still delivering funds to producers which can be production distorting. In this case, a policy strategy might be to require greater targeting to environmental goals, such as site-specific payments.

The use of AEPs and conservation payments has increased in the past decade since the 1992 MacSharry reforms in the EU and with the 1996 and 2002 Farm Bills in the United States. Much work has been done on the effectiveness of these programs in addressing the environmental externalities of agriculture, and some has been done as to their relationship with production subsidies (more in the United States). However, little work has been done on the political economy of these programs, and even less as a joint product of a political bargain among farmers, consumers and environmentalists. Our Commissioned Paper is a first attempt at exploring this political bargain, and

illustrates that constraints on these programs (such as could be imposed by trade agreements) cannot be considered in isolation of each other.