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EVALUATION OF THE ENVIRONMENTAL IMPACTS OF CAP (COMMON AGRICULTURAL POLICY) MEASURES RELATED TO THE BEEF AND VEAL SECTOR AND THE MILK SECTOR

SHORT SUMMARY

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SHORT summary

Introduction

This evaluation seeks to determine the extent to which price support and direct payments applied in the beef and veal and dairy sectors since 1988 are in coherence with the obligations of Article 6 of the EC Treaty[1] to integrate environmental protection requirements in the CAP.

The approach has been first, to assess the likely policy impacts at farm level and then to consider the consequent effects on the environment. The analysis draws on several European data sets, the literature and seven national case studies for France, Germany, Ireland, Italy, the Netherlands, Spain and the United Kingdom.

CMO measures have worked alongside other policies and legislation, market influences and broader socio-economic trends so the specific, separate impacts of the CMOs are difficult to determine.

The Beef and Veal CMO

Price support appears to have increased the price received by beef and veal producers over the counterfactual and provided incentives for increasing production and the use of inputs, including land. Impacts vary considerably between Member States due to differences in farming systems. In particular, price support and direct payments in the beef sector have:

- Led to a higher number of beef cattle than there would have been otherwise - without the suckler cow premium it is likely that there would have been a more rapid decline in smaller specialist beef farms;
- Increased the income received from beef production;
- Helped to maintain a wider distribution of beef production than otherwise would have been the case, for example including within marginal areas; and
- Helped maintain a greater number of farms and farmers in beef production than otherwise.

In general, the more cattle numbers are elevated above the counterfactual, the greater the **pressures on the environment**. The suckler cow premium and the extensification premium are the two direct payments that can be most clearly linked to environmental impacts. These vary between regions and can be both positive and negative. Particular pressures are likely to have been experienced in relation to:

- **Water quality** due to point source and diffuse water pollution from increased levels of livestock wastes, nutrient use on crop land and soil run off, although the extensification premium has meant that fewer farms have intensified than might otherwise have done so, thereby curtailing some pressures;

[1] The Treaty on European Union and the Treaty establishing the European Community; Official Journal C 321E of 29 December 2006. Article 6 "*Environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities (…), in particular with a view to promoting sustainable development*."

- **Increased pressure on soils** where inappropriate levels of grazing have occurred leading to a greater risk of soil erosion and localised poaching;
- **Biodiversity** where overgrazing has taken place on semi-natural habitats, above the carrying capacity of the vegetation in some areas;
- **Increased emissions of greenhouse gas emissions**, in particular methane (CH_4) resulting from enteric fermentation; and
- Elevated levels of **ammonia emissions**, impacting on air quality, and acidification particularly in areas where concentration of production has taken place.

At the same time the maintenance of cattle numbers associated with well managed extensive grazing systems particularly in more marginal areas generally will have been environmentally beneficial for both biodiversity and landscape management.

The Dairy CMO and Milk Quota

There are considerable uncertainties regarding the combined effects of the dairy CMO price support mechanisms and the milk quota mechanism. The latter has constrained the growth in milk production that would have occurred in response to the price levels under the CMO in the absence of quotas. The combination of the two policies has stabilised production of milk at a consistent and predictable level. Against a background of continuous decline in dairy cow numbers arising from higher yields in the EU and elsewhere, the total population of dairy cattle and number of dairy farms has been higher over the period compared to the absence of the CMO.

The impacts of the quota system vary between Member States and over time. In general the system has prevented the migration of production to more competitive Member States and, in some Member States with internal restrictions on quota transfer, it has prevented or slowed down regional concentration. The existence of dairy quota has led to a range of producer responses aimed at maximising the average net margin received from each litre produced.

The **environmental impacts** of price support in combination with milk quota mainly stem from the higher numbers of dairy cows relative to the counterfactual. However, the potential environmental pressures will depend to a significant degree on farm management decisions and related investments. A greater number of dairy cows will result in:

- **elevated emissions of methane** as well as higher levels of nitrous oxide production from manure and additional fodder production;
- Increased production of slurry and nutrients adding to the **pressures on the aquatic environment and increased ammonia emissions,** although there is some evidence to show that larger scale operations can be more efficient in managing manure, wastes and other pollution hazards;
- a greater area of land devoted to fodder production as a result of increased feed requirements, most of it likely to be under intensive management. This potentially increases the use of inorganic fertilisers and biocides, which leads to negative environmental effects, particularly on **water quality and biodiversity**.

The progressive implementation of the Nitrates Directive and other water pollution measures has brought with it more stringent water pollution standards at the same time as farms have got larger and it is not clear which of the two drivers (legislative pressure or investment associated with structural change) is more significant.

Single Farm Payment and Coupled Payments
The shift from coupled to decoupled support can be expected to change production patterns over time To date, apart from some decline in stock numbers, more significant changes have not yet become apparent, although there is some anecdotal evidence to show that some restructuring is occurring, with some regional intensification, some localised marginalisation and some substitution between beef and sheep farming depending on regional conditions.

Where the suckler cow premium remains coupled, this appears to be contributing to the retention of more stock than otherwise might occur, thus slowing down the rate of decline of less intensively managed beef cattle, particularly within certain regions including many LFAs. The coupled dairy premium has had limited impact on dairy farm incomes and minimal impact on production levels and management practices. The impacts of the more recently introduced Article 69 measures are not yet clear. We can anticipate greater changes in production patterns over time.

The resulting **environmental impacts** of changing herd sizes range from the positive to the negative and depend very much on the local context. However, these cannot be attributed solely to the introduction of the fully decoupled SPS or SAPS. The limited evidence available suggests that there are likely to be reductions in environmental pressures on soil erosion and water pollution and reductions in methane and nitrous oxide emissions following an anticipated fall in cattle numbers. At the same time, the risk of undergrazing or abandonment with the associated biodiversity losses will increase. The environmental impacts of coupled payments are similar to those of the direct payments as outlined above, with the main direct impacts linked to the incentive to maintain more cattle than otherwise and the subsequent continuation of both intensive and extensive management systems.

The contribution of **cross-compliance** is important to consider. All beef and dairy farmers receiving coupled payments are obliged to adhere to cross compliance conditions. While the environmental standards embodied in the SMRs apply to cattle farming irrespective of cross compliance there is evidence from the case studies that it has had an impact on awareness of the specific environmental legislation involved, particularly in relation to soils and water quality, in some countries at least.

Conclusions
In summary, a combination of price support and direct payments has led to elevated numbers of cattle above what would otherwise have been the case in the beef, veal and dairy sectors with some restraints arising from the quota system in the dairy sector. This has increased:

- Levels of greenhouse gas emissions;
- Water pollution;
- Ammonia emissions;
- Pressure on soils;
- Land devoted to fodder production, including both intensively managed grass and maize; and
- Pressure on landscape and biodiversity in certain areas.

At the same time it has supported the retention of a proportion of the beef herd which is extensively managed which has contributed to landscape quality and biodiversity.

Attempts to target support more on the relatively extensive section of the herd through attaching stocking thresholds to direct payments have had limited success due to the use of standard stocking thresholds across the EU. These have not been sensitive to local environmental conditions and were set at too high a level to significantly differentiate in favour of those farms pursuing more extensive grazing systems.

Recommendations relating to the beef and veal sector:
At present rural development measures aimed at sustaining beneficial farming practices offer compensation to producers in the LFA and those signing agri-environment agreements. However, compensation alone may not cover the full cost of providing the desired environmental outcome if the underlying system in insufficiently profitable. For this reason, a capacity to focus support to farming systems of particular environmental value in the areas where they are most beneficial would complement these rural development measures.

Opportunities for more focussed support could be achieved through the use of a less sectorally focused and more environmentally flexible 'Article 69' approach, alongside more targeted Pillar Two measures, with the latter delivered through the agri-environment measure or a revised LFA measure with a greater emphasis on the delivery of environmental outcomes. Additionally, there is a need to review the application of Article 69 to evaluate the outcomes that it has delivered up to now, particularly from an environmental perspective.

Recommendations relating to the dairy sector:
Most dairy enterprises are managed intensively creating considerable environmental pressures. The Commission has indicated that milk quotas will cease to apply after 2015, with measures to allow a soft 'phasing out' proposed as part of the CAP Health Check. This suggests two key policy related needs for the future in relation to the environment.

Firstly, sufficient measures need to be in place to manage growing environmental demands – especially in relation to water pollution and climate change. Existing cross compliance measures do not focus on some of the most pressing concerns, such as diffuse pollution and accelerated reductions in greenhouse gas emissions. Second, there may be circumstances in which the continuation of dairy cattle production is desirable environmentally, for example, in Alpine pastures and where alternatives such as beef rearing would either not be beneficial environmentally or would not be viable. In such cases a dedicated and well targeted measure under Article 69 could play a role to support rural development measures, such as agri-environment.