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## **Rural Development under the CAP: Significance, likely impacts and modelling issues**

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### **Abstract**

*To date, modelling work to examine the impacts of the CAP on rural land use has focused almost exclusively upon the effects of first-pillar measures – the Common Market Organisations. However, since 1992 and particularly following the Agenda 2000 reforms to the CAP, the policy has devoted an increasing share of resources to the second pillar, or support for rural development. While at the EU level, the total share of CAP spend in pillar 2 is still small (accounting for around 18.5% of all EAGGF funds), at the national and regional level this share varies considerably and there are some areas for whom pillar 2 now takes the major part of CAP spending. Thus it is already, and will increasingly become more, important for modellers to be aware of the constituent parts of this rural development policy under the CAP and their likely impacts upon rural land use. This paper outlines the main characteristics of the measures – both multi-annual, land-based and one-off, project-based schemes – and considers the opportunities and the difficulties inherent in attempting to build them into modelling work. While it should be relatively simple to work with some measures – eg the less favoured area aids – it will be much more difficult to deal with others, such as farm investment or aid for rural capacity-building and community development. The paper concludes with some recommendations for the way forward, in this respect.*

### **1. Introduction – the significance of rural development funding under the CAP**

When researchers build economic models to examine the impacts of CAP changes upon farms and thus to consider their environmental impacts, these models tend to concentrate upon the main market measures under the CAP. Changes in market policies change the relative profitability of different production systems and thus farmers switch their land use and production practices in response to these changes, which leads to impacts upon the environment. However, this simple sequence is only part of the picture. The policy now has two ‘pillars’: market measures and rural development, and both may have significant impacts upon farming change and the farmland environment across Europe. In addition, the significance of the second pillar is growing over time. Thus it is important to be aware of the implications of the second pillar, in this context.

The so-called ‘second pillar’ of the Common Agricultural Policy, its Rural Development Regulation (RDR) was only formally created under the Agenda 2000

reforms. However, the measures which make up the current rural development policy of the CAP were mainly introduced during the 1990s, and a few have even earlier origins in the 1970s and 80s. The basic menu of measures under the current Regulation brings together the former CAP accompanying measures and a range of rural development and farm structures aids from former Structural fund programmes.

Partly as a result of its mixed origins, rural development under the CAP is rather a hybrid concept. It combines all those EU aids which are mainly targeted to the agricultural sector but which are not about straightforward market management. Thus it supports many more kinds of action than might normally be thought of as 'rural development'. Under Agenda 2000 and in the new policy just agreed for the period 2007-13, CAP rural development has the following elements:

- Axis 1: aids to support efficient farm and forestry restructuring, including investments, training, and programmes to help older farmers retire and younger farmers to start up in business;
- Axis 2: aids broadly to support environmental management undertaken by farmers and foresters, with payments offered for the carrying out of regular management for biodiversity, pollution control, landscape maintenance, the planting of new forests on former farm land, etc;
- Axis 3: aids designed to help promote more diverse rural economic and cultural activities. These are partly a means to offer exit routes or diversification opportunities for those who face declining farm incomes, but also partly to support other aspects of the rural population and economy, in areas where remoteness or marginality make them vulnerable to declining agricultural activity. These aids include community activities like village renewal programmes, support for tourism and local crafts, aid for providing enhanced water management for agriculture (eg to help local public authorities improve irrigation systems), specific environmental protection investments, local transport provision and other basic infrastructure to support rural communities.

The preamble to the Regulation makes it clear that there is a presumption that the bulk of resources for rural development under the CAP should be devoted to 'agriculture or activities close to agriculture' (CEC, 1999). Thus the second pillar offers a wide range of funding opportunities for farmers, which may affect their farm management decisions and the range and quantity of outputs that they choose to produce.

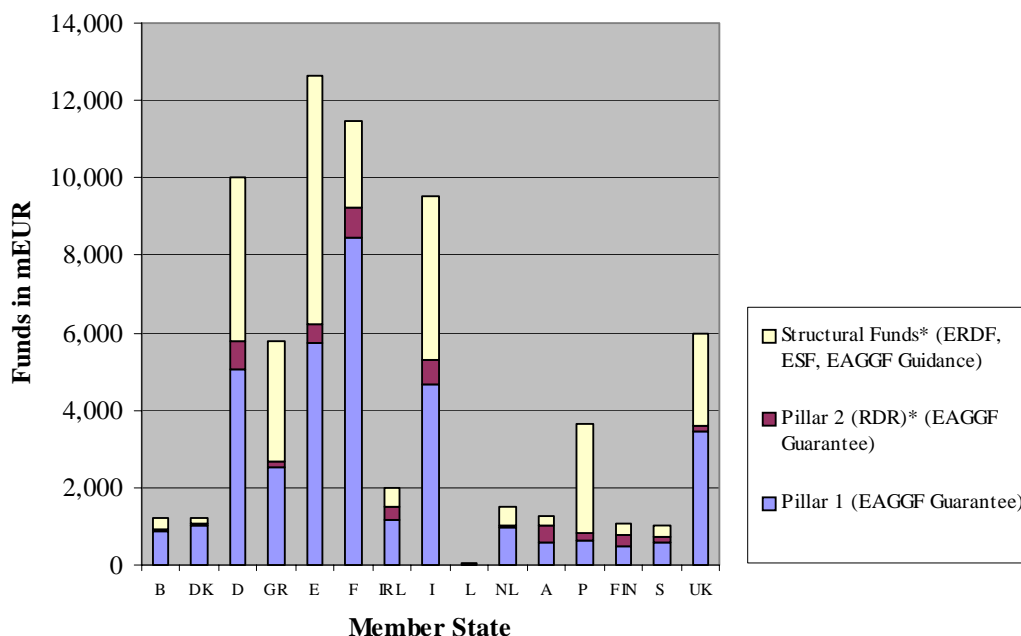
Also, it is important to be aware of the scale of RDR funding by comparison with other CAP funds, which is increasing over time. At the EU level, rural development programmes only account for 15% of the EAGGF Guarantee budget, while 85% is devoted to funding the CAP market regimes. However, rural development is also funded from the EAGGF Guidance fund, targeted to the lagging regions in Europe under cohesion policy, which increases the total proportion of CAP spend on rural development to around 18.5 per cent for the EU-15, for the 2000-6 period. In the New Member States, an additional and significant sum has also been allocated to rural development funding, alongside a restricted amount for support under the CAP market regimes. So in terms of EU money, quite a significant sum is already devoted

to rural development policy under the CAP – probably somewhere around 9 billion Euro per year out of a CAP total of 47 billion.

Furthermore, it should be noted that rural development funding from the EU has to be co-financed by the Member States at rates between 25 and 75% of the total public spend. This means that the total public funding for rural development under the CAP may be double or three times the EU allocation. By contrast, the CAP market measures expenditure is 100% funded by the EU budget, with no matching funds from the Member States. At the level of the beneficiaries of funding, this will again increase the relative importance of pillar 2 versus pillar 1.

Currently, the allocation of rural development monies between Member States varies considerably according to historic and economic factors. This means that the relative significance of rural development funding for agriculture, by comparison with the funds available through the market regimes, varies considerably between Member States. Table 1 illustrates this point with figures for the EU-15.

**Table 1. Comparison of EU aids for Pillar One CAP payments, Pillar Two RDR and Structural Funds (ESF, ERDF and EAGGF-Guidance) in Member States**



\* annual average expenditure, 2000-2006

As can be seen, for Austria, EU rural development funding is actually larger than CAP market funding, while for other Member States including Finland and Ireland, it is also fairly significant. If the co-financing expenditure by the Member States were added to these figures, the relative significance of rural development monies in more countries, such as Germany and Italy, would also increase to a point where it may be a key influence on farming change, in some localities.

Among the 10 new Member States, the gradual phasing in of CAP market support under the Simplified scheme also means that rural development budgets may be

equally, if not more, significant sources of funding for farms than the market regimes, at least in the short term.

#### *Future trends*

Under the CAP reforms agreed in 2003 and 4, compulsory modulation is to be applied to all direct payments under the CAP market regimes from 2005, meaning that the funding for rural development will benefit from a top-slice of market regime funding of 3 per cent initially, rising to 5 per cent by 2007. In addition, it is widely anticipated that the financial discipline mechanism will have to be applied to pillar 1 aids in 2007/8, to provide funds to enable the reform of the EU dairy regime and to enable the accession of Bulgaria and Romania into the CAP. This means that the scale of pillar 1 support under the market regimes is likely to decrease, beyond that date. Thus the balance will gradually change between the two pillars, slowly increasing the relative importance of pillar 2 funding for European agriculture and decreasing the scale of pillar 1 funding.

From this analysis it can be seen that, when modellers are seeking to examine the current and future impacts of CAP policies upon farming change and thus upon land-use and other environmental variables, it is no longer acceptable to ignore the impacts of CAP rural development policies.

## **2. What kinds of aid does the RDR offer, and how do they affect farm management decisions?**

Section 1 gave a description of the main purposes of aid under the rural development policies of the CAP. Because these purposes are very varied, the kinds of support offered under the regulation are also variable. Broadly speaking, the types of aid on offer can be grouped into five different categories, in relation to their direct effect upon farm businesses.

- a. Compensatory aids offered as regular annual payments to farmers under multi-annual contracts, usually for the provision of environmental management services.
- b. Investment aids which usually cover only a proportion of the total cost of a one-off or short-term programme of investment activity on a farm (capital items) or for a farmer (training courses and other qualifications). These may be designed to improve the efficiency of an agricultural aspect of the business, or they may be intended to enable the farm to diversify into non-farming activities (farm shops, processing and marketing activities, tourist accommodation, etc).
- c. Other capital-related support such as low- or no-interest loan facilities to enable farmers to make investments.
- d. Collective investments in agricultural infrastructure such as irrigation or land restructuring, which may bring direct or indirect efficiency gains to individual farm businesses.

- e. Project aids offered to collective or community projects which are likely to offer only indirect support to farmers eg by providing new childcare facilities or new transport which enables them to seek off-farm employment to supplement incomes.

By comparison with market aids, therefore, these kinds of support appear more difficult to model. They are not homogeneous in character and their effects upon farm economics may be direct or indirect, and immediate or gradual.

Type a is probably the simplest for of aid to deal with, because like the market support, it is applied as a regular annual income and the payment is related to a specific area of land on each farm holding. This type of payment includes the following measures:

- Aids for farmers in Less Favoured Areas of the EU, as defined by a system of designation on the basis of marginality, paid annually;
- Agri-environment aids offered to farmers who agree management contracts to farm in ways that will bring environmental benefits, paid annually for the duration of the contract (5 or 10 years, usually);
- Aids for the afforestation of farmland, paid annually for up to 20 years while the trees are establishing and prior to any harvest.

But how should modellers treat this kind of aid? Is it similar to a decoupled income support, or a direct payment which usually is linked to a particular product sector?

For LFA support and farmland afforestation, the payment is perhaps similar to a decoupled payment. These are broad and general measures designed to offer either compensation for natural handicap (LFA) or compensation for the loss of that area of land from farming (afforestation) and the aid is paid per hectare of land affected.

However, for agri-environment schemes, because the purpose of the aid is directly supporting certain kinds of management practice, its impacts may be more linked to production, but not in a conventional way. The funds may be conditional upon maintaining more extensive practices which would not be profitable without funds, or they may pay the farmer to do something purely for environmental reasons which has no direct impact upon farming activities. Under the terms of the regulation, payments have to be based upon a combination of profit foregone, management costs incurred, and some element of incentive, where justified. But the balance between these elements may vary between measures. Research evidence suggests that some farmers regard these payments as part of their farm income in the same way that they regard direct payments or the new decoupled CAP payments under Pillar 1. But for others, the payments are seen as entirely separate, providing a return on management activity which is almost entirely separate to the farming activity on the land (eg if the agri-environment scheme supports the maintenance of small areas of semi-natural habitat which are not integral to the farming operation). The impact therefore will tend to depend upon the type of measures funded and their relationship to the farming operation.

For aid in categories b or c, the general purpose or impact of the aid should be to enable farmers to improve the profitability of their businesses, thus enabling cost

savings or improved productivity over time. However, there is a key distinction to be made here between agricultural and non-agricultural aspects of the business, in that funding may not always improve the efficiency of farming *per se*. So the consequence of this investment may be improved agricultural productivity or it may be reduced agricultural activity as a result of increased non-agricultural activity, with either no effect or a positive or negative effect upon farming efficiency, depending upon the scale and nature of changes involved.

For aid in category d, the general result of this kind of support should normally be improved agricultural efficiency in relation to resource use, but the effect of investment will be indirect, so multiple farms benefit from one investment, and to varying degrees.

For aid in category e, the effect on farming will be indirect but it could nevertheless be significant in some cases – for example, if a new local nursery enables a farming couple to devote more time to the business and thereby initiate a new enterprise on the farm, or if a village successfully increases tourist capacity and this allows a farm to increase the value of its sales by selling direct to visitors. But predicting the likely consequences for farming of this kind of support will be very difficult. It will require a form of analysis which is able to deal with the specificities of local areas and which can model the interlinkages in the rural economy between farming and non-farming sectors and activities.

### **3. Implications for modelling CAP impacts – the way forward**

Section 2 has examined the nature of aids under the second pillar and the ways in which they are likely to affect change at the farm level. In overview, they exhibit the following characteristics.

- Many of the aids will not produce simple linear impacts upon farm gross margins and subsequent production responses – thus, simplification may be difficult, for the purposes of modelling work.
- Different measures have different kinds of impact at the farm level. This implies that modelling will require an approach differentiated by measure, or at least by broad axis and type of aid (eg whether income or capital, direct or indirect).
- Some measures will have different impacts depending upon local applications and broader economic and social circumstances in each situation. This suggests a need for models which incorporate spatial variation, ideally at a sub-regional level, and which are able to track the interlinkages between farms and the wider rural economy.

Taken together, these factors imply that simple linear partial equilibrium models of the sector will be less useful for modelling CAP impacts in future than they have been in the past. Where they continue to be used, they are likely to be only able to deal effectively with the axis 2 measures of the second pillar (largely type a, in the discussion above) – which, incidentally, are the biggest spenders currently, under pillar 2. However, if these aids are treated as either direct payments to specific sectors

or as fully decoupled income aids, the models will not capture potentially important variations in the nature of the different measures and their farm-level impacts, and thus their predictive ability will be reduced (for a theoretical discussion of similar issues, see Guyomard, 2004, and Guyomard and le Bris, 2003).

Models which can be built for specific regions where there is a fairly homogeneous uptake of pillar 2 aids will be more useful in examining future impacts than more general models at the level of the Member States. Current experience with these measures and their uptake seems to support the notion that within-country 'zoning' of land uses is becoming more apparent, with some areas becoming more 'environmentally driven' and extensively managed, with a high level of use of axis 2 measures under the RDR, while other regions remain 'production driven' and make relatively minor use of these aids.

Finally, considering the implications of indirect impacts from broader Axis 3-type aids for rural development and diversification, models which can deal with interlinkages in economies will be much more useful than those dealing only with the agriculture sector. This ties in with wider trends in rural areas across the EU, as many countries experience an increasingly diversified rural economy and society. Thus we may need to reject linear optimisation models of agricultural production, in favour of regional or local input-output or social accounting matrix approaches, to analyse the impacts of policy changes. Some interesting work has already begun in this area (e.g. Psaltopoulos and Balamou, 2005), but as yet, these models produce only crude estimations of environmental and land use change.

#### **4. Conclusions**

The task of assessing the impacts of EU policies upon Europe's environment is complex but vital, if we are to attempt to sustain and enhance this rich resource-base into the future. To date, attempts to model the impacts of the CAP – the EU's biggest spending policy – on the environment have been limited, but as data becomes more available and modelling techniques improve, these activities seem likely to expand, and already some interesting studies have been published (e.g. Lehtonen et al, 2005). However, the CAP itself is changing and as this paper has indicated, its scope and purposes are becoming more diverse. This makes it important for modellers to be aware of the implications of these changes, and particularly the growth in significance of rural development under the CAP, for their work.

The analysis presented here implies that increasingly, those who seek to model the impacts of the CAP upon rural land use will need to move away from simple sectoral modelling based upon the notion of the policy as 'aid to agriculture', and towards more spatially differentiated and multi-sectoral modelling approaches which reflect the increasing 'multifunctionality' of the policy. As its rural development focus expands, notwithstanding the current EU political commitment to keep CAP funding focused on the farm sector, the impacts of the CAP will have to be analysed by reference to the wider rural economy and the broader interests of society in rural areas. This trend is wholly in keeping with actual trends in the governance and management of rural space across Europe.

## 5. References

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