A multicommodity EU policy framework incorporating public good criteria into the direct payment system in agriculture

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Abstract
For decades the CAP has been the major influence in shaping EU agriculture and food production. The economic and policy environment in the EU is now very different from that which prevailed in the earlier decades. The future economic, social and geographic diversity of the EU will be further increased by enlargement. Agricultural policies and the related operational frameworks will inevitably change to accommodate this added diversity and the changing societal and consumer values. This paper evaluates how the current shape of EU agriculture has been influenced by the reforms to date. It also attempts to focus on where EU farming may be, or wish to go, over the next decade. The evaluation is restricted to the beef sector as it has been to the forefront in the policy reforms of the last decade and because the adjustments were inevitably complex due to the scale of the oversupply problems, the biological and market intricacies involved. This evaluation concluded that the current EU beef policy is severely constrained with poor targeting of the income supports, high production costs, based on an administratively complex and expensive control system without any clear benefit to either society or taxpayer for a rather large expenditure. In the past, agricultural policy in the EU was primarily driven by the need for a secure food supply and with the objective of sustaining the economic and social needs of farmers. But, in the well fed and affluent EU society of the 21st century, agricultural policy will be mainly driven by the economic and social goals which are rapidly changing. This society places a declining value on extra units of food production, but an increasing value on any public goods consumed in the production process. As a consequence, the mix of agricultural production and public goods that this society is prepared to support financially is changing rapidly. The level and components of farm incomes in the EU in the 21st century will reflect these changes. Farm revenue will likely consist of a mix of payments for conventional agricultural products and public goods. The public good payments will be conditional on the level and type of inputs used, farming practices, types of products produced and a societal vision of the role of farming. This will affect production costs, scale of operation and the future configuration of agriculture and rural society. To meet this evolving situation the paper also develops and outlines a multi-commodity framework by which the EU could reorient its direct payment (DP) system to incorporate a range of public good values to the mutual benefit of consumers, taxpayers and farmers.

Keywords: CAP reform, direct payments for public goods, animal welfare, environment, food safety, production methods, extensive production, economic, social and geographic diversity, future role of farming, an administrative framework.

Introduction

The original CAP used the principle of high commodity prices to support farm incomes and increase food supply. This resulted in the intensification of EU agriculture which eventually led to severe structural surpluses for most commodities and this precipitated severe international trade difficulties for the EU. A major CAP reform was introduced for cereals and beef under the MacSharry agreement in 1992. Under the recent Agenda 2000 agreement the reform was further deepened for beef and cereals and tentatively extended to include milk, but at this stage additional reform seems inevitable. As a consequence of these reforms, the annual value of EU commodity based direct payments (DPs) to farmers has rapidly increased from a low base to almost €30 billion. An increase in expenditure of this order of magnitude will ultimately change the way farmers undertake their activities. But the transparency of the expenditure is bound to raise questions about its future function and value to society. Adjusting to the reformed CAP structures of the last decade has provided a major challenge for farmers, input suppliers and output processors. For beef, the adjustment process was seriously compounded by the continuing fallout from the BSE crises of 1996 and 2000. The eventual consequences of BSE for farming in the EU are only now beginning to emerge. It is the authors' contention that this will eventually lead to a redefinition of acceptable food production practices and the role of farming in the EU.

Growing the farm business

Farmers, like all members of society, continuously strive to increase their income. For a solution to their income problem, farmers in the past generally focused exclusively on their farming activities. This was normally based on a combination of personal choice and circumstances both on-farm and in the wider economy. The solutions usually consisted of some mix of:

- a switch to farm enterprises with higher margins per hectare
- increasing the intensity of all enterprises
- enlarging the farm size either through land rental or purchase.

The options for changing the farm enterprise mix are now severely constrained by developments in the CAP such as:

- milk quotas
- the "eligible land" requirements for cereals
- the DP premia entitlements for cattle and sheep, and
- the ever tightening compliance criteria for DPs.

The possibilities for increasing and intensifying production are rapidly disappearing due to:

- declining product prices, both institutional and market
- increasing production costs
- increasing reliance on DPs with related compliance criteria, especially the stocking density requirements
- the financial attractiveness of other direct payments and agri-environmental measures despite somewhat restrictive compliance standards.

Renting or purchasing land to increase the scale of operation offers possibilities for increasing incomes by reducing unit costs. Even this option appears to be shrinking as farmers collectively respond to the CAP policy changes, especially the stocking density criteria for extensification (Dunne *et al* 2000 and 2001). As farm incomes continue to decline relative to non-farm incomes, farmers progressively shift to part-time farming. This restricts land mobility and further constrains the capacity for full-time farmers wishing to scale-up their farming activities.

For all these reasons, getting access to land is becoming more problematic. Consequently, land values and rental charges continue to increase even though product prices are declining. Under the reformed CAP, the main drivers here are:

- the increasing value of the DPs
- the stocking rate requirements for livestock direct payments, especially extensification,
- the shift to modulation targets by either land area, animal numbers or total value for DPs and for agri-environmental payments,
- the increasing availability of finance generated from both farm and non farm incomes, and
- low interest rates.

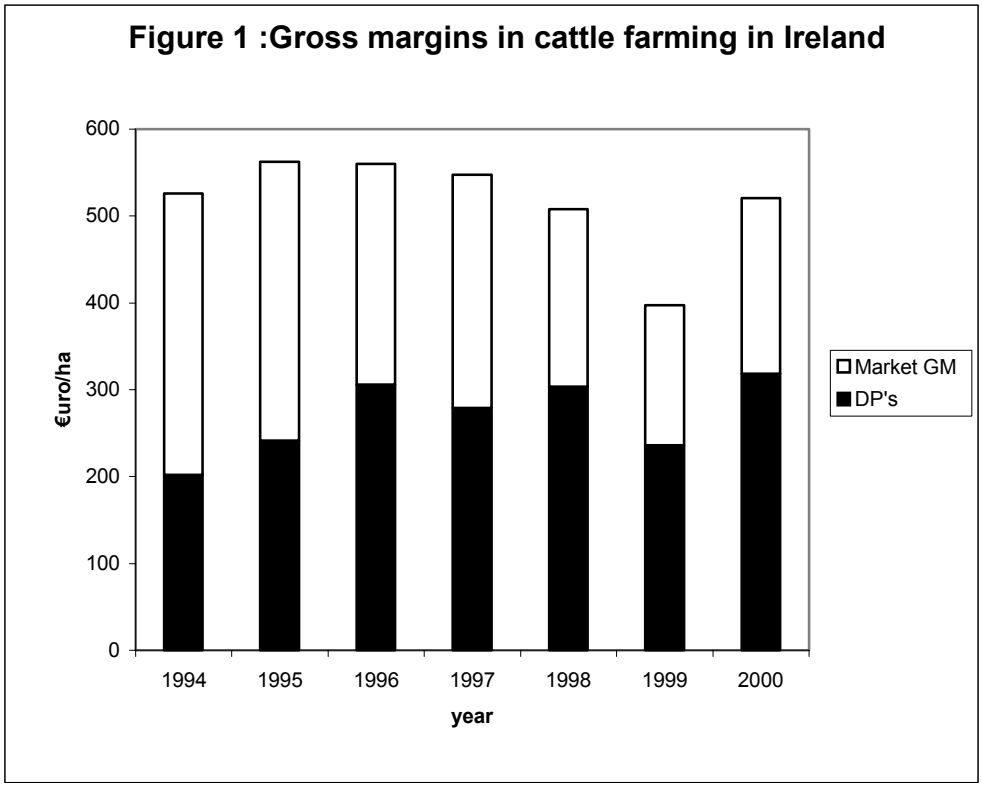
Policy Switch to Direct Payments

In 1992, major adjustments were made to the EU system of supporting the cereals and beef markets and the incomes of the farmers producing these commodities. Support prices were reduced by 30 percent to enable beef to better compete with other meats and to facilitate exports of cereals and meats to third countries. To compensate for the planned lower product prices for cereals and beef, farmers received direct payments (DPs) or "cheques in the post" to maintain their incomes. Cattle farmers, due to the inherent complexities of the cattle enterprise, have the greatest difficulties in adjusting their farming methods to accommodate the new income support system. The outcome in terms of margins and income and the consequences for cattle supply and degree of finish are documented elsewhere (see Dunne *et al* 1999). Somewhat, less severe adjustment problems and consequences also arise for cereals and with further reform for milk probable in the future this sector will be similarly affected.

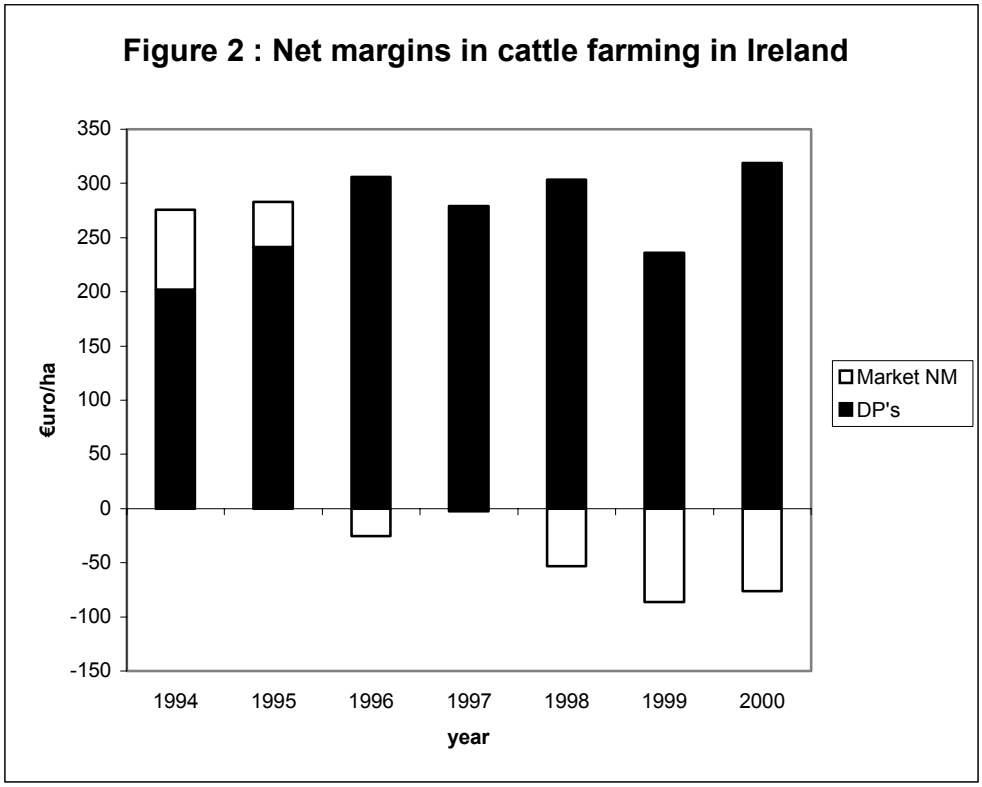
The resulting Benefits and Cost

The following is a brief review of the main benefits and costs associated with the existing DP system as it operates for cattle farming in Ireland. For cattle farmers these payments were and are based on the ***possession*** of certain types of animals which have to be "farmed" within specified stocking density limits. The Agenda 2000 agreement is largely an extension of the reforms made in 1992. It is generally accepted that cattle farmers' incomes in Ireland have benefited greatly from the CAP reform in 1992 and from the recent Agenda 2000 agreement. Why, then, is there so much disillusionment about the future?

The fundamental issue is that cattle production *per se* has become uneconomic and is increasingly being wedged in a cost-price squeeze. As shown in Figure 1, the gross margin from the entire "Irish cattle enterprise" was largely maintained until 1998 but the composition of that margin was becoming increasingly dependent on direct payments (DPs). The market based gross margin (MBGM), which is the value of the carcass less the direct costs, decreased rapidly after 1995 once the price of beef declined. By the end of the decade, the MBGM was small and still declining. The slight recovery in 2000 was due to due to a recovery in cattle prices from the low level that prevailed in 1999. The deteriorating situation becomes even more acute when the market based net margin (MBNM), which is the value of the carcass less the total cost of production, is examined (Figure 2). The (MBNM) was declining but still positive until 1996 when it became negative. It became increasingly negative in 1998 and 1999 with a small recovery in 2000 due to the increase in cattle prices. But it will resume its negative trend as the Agenda 2000 agreement is phased in and the value of the DPs increase and beef prices decline.



Source:Teagasc National Farm Survey



Source:Teagasc National Farm Survey

The data for Figures 1 and 2 were derived from the Teagasc, National Farm Survey and they clearly show that Irish cattle effectively "die in debt" and collectively Irish cattle farmers have been "paying to get the cheque in the post" since 1996. For the individual cattle farmer, production costs have been increasing due to the additive impact of:

- the quota restrictions on the supply of calves which results in high calf prices the benefit of which accrues mainly to dairy farmers, and
- the ever increasing land base needed to achieve the stocking density limits required to collect the direct payments which have in effect become the only income
- the ever increasing land base needed to collect the higher value extensification premium.

The overall system provides very limited scope for the individual farmer to manage costs to reflect the final market value of the beef carcass. There is considerable evidence to support the view that much of the value of the direct payments is being dissipated to the suppliers of land, calves and young animals (Dunne *et al* 1999). This keeps the price of these young animals artificially high and the same applies to land rental charges. The end result is that there is no market return from producing the beef animal itself.

Farmers have less and less control of the margins they can obtain from their animals. The overall revenue in the sector is fixed and a declining portion of it is derived from the market as the value of the carcass declines. Because of the declining importance of the market-based margin, beef producers are becoming progressively isolated from the consumer. But costs are increasing and these increases are mainly driven by the compliance criteria for the direct payments, more expensive calves, and land. Consequently, incomes cannot increase unless the numbers of cattle farmers decline.

But cattle farmers, because of their circumstances, were largely ineligible for the Farm Retirement Scheme. This is still the situation despite some recent modifications to the criteria for the Farm Retirement Scheme. The end result is the farmer has to stay in beef production although there is no profit in cattle production *per se*. **But *the farmer needs the cattle to get access to the direct payments which are in fact the income.***

A similar economic situation exists for most cereal farmers in Ireland who wish to scale-up their activities (Dunne and O'Connell 1994). The margin is in the direct payment but access to extra "eligible land" is required to draw down more direct payments.

The major weakness in the existing DP system for cattle farmers is in relation to the inequitable distribution of the payments themselves and the leakage of much of their value into input costs. The main effects are:

- the poor targeting of the payments themselves
- administrative complexities, direct and indirect costs, of the payment system itself
- the knock-on effects of the payment system in relation to:
    - beef production costs and
    - the lack of reward for good animal husbandry practices and for producing quality beef
- the lack of any clear benefit to either society and/or the taxpayer from this rather large expenditure.

TABLE 1: **An Integrated Consumer Oriented Direct Payment System for Crop and Livestock Producers**

WTO/EU		**EU Decisions**					**National Decisions on Commodity Envelope distribution**	
Commodity	World Market Price	EU Support Price	COFLEAP[1] Per ha	UAA ha	Extensif-ication[2]	National Envelope (UAA times COFLEAP)	Payment per Farmer[3] (x %)	payment per hectare[4] (100-x)
Woodland								
Trees & shrubs								
Crops								
Sheep								
Milk								
Beef cows								
Beef cattle								

[1] COFLEAP
Consumer Oriented Food Landscape Environment Assurance Premium

[2] Extensification paid as "top up" where applicable

[1] COFLEAP
Common EU Compliance Criteria for the <u>entire farm</u>:

- Landscape & homestead management
- Nutrient (organic & inorganic) balances
- Input protocols (hormones, feeds etc)
- Minimum & maximum stocking densities, using all and not just eligible animals
- Production practices
- Product traceability
- Food safety

National (additional) Compliance Criteria to:

- Address local weaknesses
- Exploit local strengths
- Provide the basis of a competitive marketing strategy via product differentiation

[3] **Per Farmer** compensation for the extra overhead costs due to the compliance criteria and for social cohesion. Could be "capped" for farms producing multiple outputs.

[4] **Per hectare** compensation for the extra variable costs of the compliance criteria and could be modulated.

Source: Dunne and O'Connell 1998

premium, could be used to encourage even more extensive production methods and to assist the poorer and more remote regions of the EU. The revenue accruing to each member state would be the product of the mix of land uses (UAA) and the rate per hectare payment (COFLEAP, see Table 1) for each commodity. These "national envelopes" could then be dispersed to reflect the diversity of the economic, social, and environmental conditions. Alternatively, the revenue distribution between member states could be based on the value of the existing DPs for the commodities that have already been reformed under MacSharry and Agenda 2000 agreements. The individual member state could simply distribute the "envelope" on a per hectare basis for each commodity like the "new disadvantaged areas" payment. It might be preferable and more equitable to use a mix of a payment per farmer/household and a reduced payment per hectare. This latter approach would reduce the capitalisation of DPs into assets and costs and would provide for a stronger public good and social dimension to meet local needs especially in the poorer regions of the Union. This mechanism would also be more compatible with the EU vision of agriculture and rural areas outlined earlier.

Public Good Criteria

The primary DP per hectare at the EU level would be made conditional on a range of compliance criteria for the operation of the entire farm. This would, as outlined in Table 1, incorporate public good and consumer values in relation to food, landscape, environment, animal welfare and production technology. The criteria would be common across the EU and thereby compatible with the single market requirements. In addition to the common EU compliance criteria, further specifications could be implemented by National governments to address local weakness, exploit strengths, encourage product differentiation and competitive marketing strategies but within an overall EU single market system. An appropriate title for the payment might be **C**onsumer **O**riented , **F**ood, **L**andscape, and **E**nvironment **A**ssurance **P**remium (**COFLEAP**).

Post Agenda 2000

Under this new post Agenda 2000 system, the main operational control point for the DPs switches from the individual animal or crop to the "entire farm". This would introduce a whole new dynamic into the entire policy/farming interface. The implementation of the post Agenda 2000 system facilitates:

- better targeting of the DPs towards economic and social goals. This could be achieved by varying the mix of the value of the area and farmer/household payments used to distribute the DP. Table 2 summarises the likely impact of the mix selected on future farm structure and profile of rural areas
- a reduction, by possibly five fold, in the number of administrative control nodes due to the shift of emphases from the details of the individual animals to the farm as an "operational unit"
- a reduction in the "paperwork" for both farmers and the controling agency. In the post Agenda 2000 system, animals can be traced but without the need for an immediate day to day log of their exact location and premium status.
- a reduction in the number of inspections required to achieve the desired level of compliance. The inspections will relate to the entire farm and it's operational characteristics rather than chasing individual animals.

- a reduction in the compliance costs for both the farmer and the controlling agency by reducing the day to day management needs for cross checking animals ages, sex, premium status and retention periods. Individual farm inspections may be more complex and take longer but there will be much fewer inspections required.
- farming practices to respond to the fundamental economics of the product being produced. The level of inputs used will better reflect the value of the product sales.
- the volume and type of products produced can now respond to the consumers valuation of these products.

Under the post Agenda 2000 system, the market based margin of sales value less direct costs will determine the animal numbers, type, carcass weights, slaughter dates, stocking densities and the mix of internal and external feed used. This contrasts sharply with the existing system where the overall gross margin, including the value of the DPs and the related stocking density requirements, largely dictate the mix of internal and purchased feeds used and the degree of finish of the animal produced.

Table 2: The impact of the structure of the DP mix on farming and rural areas

A straight area payment would:	A payment with a high farmer/household component would:
• favour the larger farmers • encourage restructuring of holdings • facilitate the exploitation of economies of scale • reduce the unit costs of production • be quickly capitalised into land values • encourage out-migration of people	• favour smaller farms • transfer almost directly into a farmer and/or household income • reduce the mobility of land use and ownership • increase the likelihood of part-time farming • increase the incentive to engage in farm enterprises and production practices that are compatible with part-time farming

Under the post Agenda 2000 system, it is difficult to predict the actual scale of the decline in animal numbers, prices and the knock-on effects on the farm enterprise mix. But the expenditure on concentrates and fertilisers will decrease to reflect the decline in animal and crop prices, animal numbers and the changes in the farm enterprise mix. Preliminary estimates for Ireland would suggest that compared to 1999, the expenditure reductions on purchased feeds and fertilisers could be of the order of €190 and €65 million respectively. This would be the equivalent of about one million tonnes of concentrates and about 300,000 tonnes of fertilisers.

Summary

In the past, agricultural policy in the EU was primarily driven by the need for a secure food supply and the objective of sustaining the economic and social requirements of farmers. In the well fed and affluent EU society of the 21st century, agricultural policy will be mainly driven by the economic and social goals of this new society. In this society the value placed on an extra unit of food production is declining and the value of any public goods consumed in food production is increasing. As a consequence, the mix of agricultural production and public goods that this society is prepared to support financially is changing rapidly. The level and components of farm incomes in Ireland and the EU in the 21st century will then reflect these

changes. Farm revenue will consist of a mix of payments for conventional agricultural commodities/products and public goods. The public good payments will be conditional on the level and type of inputs used, farming practices, types of products produced and a societal vision of the role of farming. This will affect production costs, scale of operation and the future configuration of agriculture and rural society.

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