

End of Project Report

POLICY options

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Project No. 4831

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September 2009

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Acknowledgements

This report is a summary of research on alternative policy options which was undertaken in the pre and post the millennium years when the EU market for beef was very volatile and supply responses together with farm incomes were heavily constrained by the EU Agenda 2000 policy agreement. Throughout this period it was becoming increasingly apparent that current policies were unsustainable and novel policy approaches were necessary. In anticipation of the pending change, a range of research techniques were used by the project team to analyse evolving policy proposals and devise better alternatives. Throughout the project, the authors had access to and the support of multidisciplinary expertise available within Teagasc and University College Dublin.

The research findings summarised in this report are the product of both the project team and the expertise provided by a cohort of collaborators. Throughout the research valuable observations and insightful comments were freely provided by a number of Teagasc research and advisory staff. The help and support was provided by colleagues John Heavy and Billy Fingleton, Rural Economy Research Centre, Maurice Roche, Liam Connolly and Ann Kinsella of the National Farm Survey, Michael Drennan, Gerry Keane, Richie Fallon and Pádraig O'Kiely of Grange Research Centre and by Dermot Forrester of Oakpark Research Centre together with Bernard Smyth and Liam Fitzgerald of the specialist advisory services. Valuable comments and feedback was also provided by Pat Caffrey, UCD and by Department of Agriculture officials, individual farmers and a range of experts in response to the many formal presentations made at national and international conferences. An acknowledgement is also due to Tony McGarry for his detailed proof reading of this report. The final interpretations and any errors are, of course, the responsibilities of the authors.

Executive Summary

The incomes of Irish cattle farmers benefited greatly from the reform of the CAP for beef and cereals in 1992 and more recently under Agenda 2000. In both of these reforms the institutional support prices were reduced and animal-based direct payments (DPs) were used to compensate farmers for the anticipated market price reductions.

This research study shows that the main reason why Irish cattle farmers gained under these reforms are that Ireland gets above the EU average benefit from DPs, but below average return from EU market price support. Therefore, the greater the switch-over to DPs the larger the income gain.

Ireland's above average benefits from DPs arises from the combined effect of the suitability of the structure of the DPs themselves and the extensive nature of the production systems used by Irish cattle farmers.

This research also showed that over the years as the switch-over to animal-based DPs progressed, cattle production *per se* has become uneconomic. But, Irish cattle farmers needed the cattle and had to remain in cattle farming to get access to the DPs that are in fact the only income.

The nature and structure of the 1992 and the Agenda 2000 CAP reforms have been such that cattle farmers and farming methods were becoming severely constrained by what could be described as “a mixture of administrative, economic and bureaucratic asphyxiation”. And, with cattle farming being so pervasive in Ireland, this affects most farmers within the country and other farm enterprises where they must co-exist.

Income compensation for product price reductions was used to justify the introduction and continuation of the DPs in both the 1992 and the Agenda 2000 reforms. This is a very weak basis on which to justify a rather large taxpayer's expenditure for either their continuation into the future or their extension to new entrants into farming.

Under the Agenda 2000 reform, the value of the extensification premium (EP) was increased almost threefold but the operational rules were substantially altered. Consequently, the potential for extra revenue arising for Irish cattle farmers was substantial. However, the administrative compliance system was much more complex and very invasive in relation to animal management events, reducing the potential for use of improved genetics and production technology, with a progressive disconnect from the consumer market for beef.

The Agenda 2000 agreement facilitated individual Member States with the once-off choice between two extensification operational systems, each with its own premium rates and related stocking density requirements. These were:

- **Option 1:** a single payment of €100 (£79) per SBP and SCP collected, provided a farm unit stocking density limit of 1.4 LU per hectare is achieved

OR

- **Option 2:** with two levels of payment depending on the stocking density
 - €80 (£63) at < 1.4 LU per hectare
 - €40 (£31.50) within the range of 1.4 and 1.8 LU per hectare.

In preparation for the negotiations for the Agenda 2000 agreement, detailed and intricate research was undertaken and published on the economic and technological implications of these extensification options. The best extensification option for Ireland was evaluated on its relative ability to deliver revenue to cattle farmers and the implications for export competitiveness of Irish beef.

Following extensive analysis of the policy options available and their likely impact it was concluded that Ireland would benefit most from availing of the Option 1 extensification system. Option 1 would:

- yield the highest revenue for the country
- target a higher portion of the revenue towards the supply of cattle from the suckler herd which are of a higher quality relative to cattle from the dairy herd
- target more of the revenue towards the poorer regions of the country where extensive production systems are already used
- release the larger dairy farms plus the more market oriented cattle fattening farms from the stocking density requirement and the administrative bureaucracy associated with the DPs and extensification
- best facilitate the production of quality finished animals for the higher priced beef markets within the EU.

It was concluded that even if Option 2 was chosen, an increasing number of Irish cattle farmers will still aim for the 1.4 limit to get the higher of the two extensification premiums available to them, i.e. €80 rather than €40 per eligible animal. Furthermore, the incentive to do this will increase as:

- calves become scarce and expensive as cow numbers decline in response to milk and suckler cow quota limits
- the market price of beef declines once the lower Agenda 2000 price supports are implemented
- more farmers opt to join REPS, with its associated more stringent nutrient and stocking density compliance criteria
- more farmers secure off-farm employment which will lead to less labour intensive and operationally simpler cattle production systems.

Under each extensification option the study found that there are substantial knock-on economic implications for land rents, forage costs, animal management activities and the degree of market orientation of cattle farming. The scale of the knock-on implications is directly related to both the extensification option chosen by the member state and financial incentive for the individual cattle farmers to participate in the scheme.

The research showed that the extra land required per animal for extensification purposes also adds to the internal supply of feed (forage) resources per animal for the farm unit. Therefore, a positive (feed) rent arises from the extra land which in-turn

would serve to reduce the economic cost of forage, especially internally produced silage. Furthermore, for most cattle production systems availing of extensification, managing surplus grass would be problematic especially on farms with high quality land. Consequently, this surplus feed would have to be removed for grassland management reasons, most likely in the form of baled silage, and almost irrespective of the cost of its off-take. In such situations, there would be very limited technical or economic reasons for cattle farmers to “import” onto the farm externally purchased feeds in the form of concentrates, almost irrespective of price.

From an inter-country comparison perspective, the overall conclusion arising from the research was that Ireland may be the only EU member state that would economically benefit from using Option 1 with its single EP and a stocking density limit of 1.4. However, when a choice became available under the Agenda 2000 agreement the authorities in Ireland chose to implement Option 2, despite its economic disadvantages, presumably because as the EU Court of Auditors report states “*it allows more producers to benefit*”.

The choice of Option 2 suggests an implicit trading away of the possibilities for obtaining both extra EU revenue and increased export competitiveness from EPs against a more ubiquitous distribution of the payments among Irish cattle farmers from a lower overall financial pool. This choice had multiple revenue and income distribution implications together with competitiveness consequences for Irish cattle farming in both the immediate years and subsequently when the animal-based DPs were decoupled and converted to the Single Farm Payment (SFP) system. Therefore, the choice of extensification Option 2 would prove to be particularly advantageous for the more intensive cattle farmers both in the immediate and longer term.

The perceptible financial benefit is completely transparent for the farmer who actually receives the animal-based DP *per se*, hence the apparent attraction of availing of Option 2. However, as our earlier research demonstrated, there are also significant indirect financial benefits arising for cattle farmers from the animal-based DP system as a consequence of the capitalisation of a portion of the value of the DPs into cattle cohort prices. In general, the main indirect beneficiaries of the capitalisation process are the farmers who breed and/or rear young animals, i.e. primarily farmers with dairy-cow and/or suckler-cow based cattle enterprises. This occurs at the expense of those farmers who may actually collect the animal-based DPs but are at the fattening or finishing stages of the cattle production chain. Therefore, farmers involved in the breeding and rearing segment benefit both directly and indirectly from the animal-based DP system. It is, however, rather difficult to precisely predict both the scale and the ultimate destination of the redistribution of these indirect benefits due to the relatively high level of inter-farm trading and the pervasive nature of cattle farming in Ireland.

A detailed analysis of trends in the actual margins derived from cattle enterprise on farms in the National Farm Survey (NFS) showed that cattle farmers’ incomes in Ireland have benefited greatly from the CAP reform in 1992 and likewise from the more recent Agenda 2000 agreement. Yet, the disillusionment about the future for Irish cattle farming continued, even post the Agenda 2000 agreement. Most of this is

related to the operational aspects and the compliance criteria of the animal-based DP income support system.

Although the overall margin for cattle was largely maintained in nominal values, an increasing proportion was being derived from the DPs. As a consequence, farmers were becoming progressively entwined in a bureaucratic compliance web and increasingly detached from beef markets and consumers. For many farmers the margins being derived from cattle production *per se* were both small and declining.

For those specialising in fattening/finishing systems, the market-based margin had effectively disappeared mainly as a consequence of the capitalisation of a significant portion of the value of the animal-based DPs into the prices of the animals they were purchasing. In the absence of the animal-based DPs, such cattle enterprises would be considered unprofitable and would therefore cease production forthwith. But if they exited cattle production they would not have access to the DPs which were effectively both their “enterprise” margin and income.

Since the payments continued to be based on the possession of certain types of animals which have to be “farmed” within specified stocking density limits, cattle production *per se* had become uneconomic and is increasingly being wedged in a cost-price squeeze. This was particularly so for those farmers involved in cattle fattening.

Under the various CAP reforms, production costs for the individual cattle farmer have been increasing due to the additive impact of:

- the quota restrictions (milk and suckler-cows) on the supply of calves which results in high calf prices, plus
- the added cost complication for calf prices arising from the capitalisation of a portion of the values of the animal-based DPs
- 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 margin and/or income
- the ever increasing land base needed to collect the higher value extensification premium, thereby increasing marginal land rents and distorting feed costs, and
- the universal increases in costs arising from subsequent inflation.

It was therefore concluded that such a DP based income support system provides very limited scope for the individual farmer to manage costs and/or adjust production methods to reflect the final and generally declining market value of the beef carcass.

The end result is that:

- there is no market return from producing the beef animal *per se*
- 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 in response to the reductions in beef support prices, but
- costs are increasing and these are mainly driven by the compliance criteria for the animal-based DPs, more expensive calves and land.

For Irish cattle farmers the growing institutional complexities of the animal-based DP system, and especially the extensification element of it, was seriously distorting the inherent economics and husbandry of farming and this income support system was becoming progressively more unsustainable.

The structural weaknesses identified in the existing animal-based DP system result in an inequitable distribution of the payments themselves and a leakage of much of their value into input and operational costs. Deficiencies identified include:

- the administrative complexities and the operational costs of the payment system itself
- the poor targeting of the payments due to inherent structural weaknesses within the DP system
- 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 absence of any clear benefit to either society and/or the taxpayer from a rather large expenditure.

With this animal-based DP income support system, average incomes within the aggregate cattle sector cannot increase unless the numbers of cattle farmers decline. But Irish cattle farmers, because of their circumstances, have been largely ineligible 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 that are in fact the income.***

A similar economic situation exists for most cereal farmers who wish to scale-up their activities to maintain or increase their income. The margin and almost all of the income is in the DPs but access to extra “eligible land” is required to draw down more DPs.

As a consequence, on many Irish farms, even where land is suitable for a range of enterprises, the optimum enterprise mix is becoming an issue of establishing the best balance between:

- the increasing value of the DPs for the individual enterprises, and
- the costs related to the compliance criteria for the DPs for the individual enterprises.

For individual farmers, most of the financial rewards are derived from “playing by the rules of the DP system” rather than from practising good animal and grassland husbandry.

As outlined in various publications arising from this research, in Ireland when the EU commodity-based DP system is combined with the traditional pattern of land inheritance and the increased availability of off-farm employment there will be very limited land available for restructuring of farms. This almost fossilisation of farm structures for both the cattle and cereals enterprises will increase unit costs over a number of years and will have a similar knock-on impact on other farm enterprises.

These research findings reinforce the earlier evidence on the desirability and the need to develop a more suitable alternative DP income support system, see End of Project Report No. 4313 and related publications. This research outlined a framework template by which most of the structural weaknesses of the existing animal-based DP system could be rectified by de-coupling the DPs from eligible animals and converting them into a mainly area-based whole farm payment system with more suitable compliance criteria to distribute DPs to farmers. Within the current project further development work was undertaken on the decoupling template for an alternative multi-commodity framework for administering DPs within the EU. Also, a range of “public goods” were identified which could be incorporated into this framework to provide a much stronger conceptual basis for continuing DP income supports into the future. The framework and related concepts were published in a number of formats to obtain feedback from stakeholders and policy makers. From an Irish perspective, this new concept was described in operational terms as “... using a schedule similar to the Farm Retirement Scheme (FRS) but with the Rural Environment Protection Schemes (REPS) type requirements.”

If this, or a similar, EU policy framework was implemented, cattle farming in Ireland could revert to a situation where:

- 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, and
- 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 suggest that compared to 1999, annual expenditure reductions on purchased feeds and fertilisers could be of the order of €190 (IR£150) and €60 (IR£50) million respectively. This would be the equivalent of about one million tonnes of concentrates and about 300,000 tonnes of fertilisers.

A similar restructuring of beef production would occur in other EU Member States and this, with an appropriate time lag, would reduce beef supplies and restore market balance in the EU. The historical evidence available from this project and an earlier related research on cattle prices would suggest that Ireland has most to gain in terms of market access and beef prices from an improved market balance within the EU.

Fully rectifying the structural weaknesses of the existing animal-based DP system through decoupling could be tedious as any such major policy reforms at EU level are by their nature slow and difficult to achieve. Moves in this direction might be possible within the Mid-Term Review (MTR) of the Agenda 2000 reforms due in 2002/03. Already the stated EU agricultural policy objectives outlined in the Agenda 2000 proposals indicated that the direction of this change was beginning to crystallise and the Agenda 2000 agreement converted the animal-based disadvantaged/less favoured areas payments to a completely area-based system.

Meanwhile, Ireland could have implemented immediately an interim but partial solution by availing of the option provided under the Agenda 2000 agreement for a single extensification payment system. Then, eligible animals on farms stocked at 1.4

LU/ha or lower would receive an extensification premium of €100 (IR£79) each. But, all other farmers and their related land area, steers, heifers, cows and cereal area could be farmed outside the stocking density constraints of the extensification system. In addition, the national revenue take from extensification would be maximised and beef export competitiveness would be enhanced.

In the autumn of 2000, just as a renewed level of confidence was beginning to emerge among Irish cattle farmers another BSE crisis occurred, first in France and later in Germany and Spain. In response, beef consumption levels declined abruptly and markets were effectively re-nationalised and normal trade flows for beef and live cattle were severely disrupted. These market problems were swiftly reflected in cattle prices in Ireland, especially for cull-cows and the lower grades of cattle. As a consequence, farmers faced many uncertainties, in the past DP “top-ups” were paid to support their incomes but now this might not be possible due to EU budget constraints. The BSE related market and trading complications were further accentuated in 2001 following a substantial outbreak of Foot and Mouth Disease (FMD) in the UK and a related but isolated incident in Ireland.

In response to the decline in demand and consumer confidence, a suite of EU wide supply control and consumer rebuilding measures were introduced. The main EU policy initiatives were:

- the mandatory testing of all carcasses from cattle over 30 months
- the immediate introduction of a scheme for Purchase For Destruction (PFD) of over 30 month animals at a guaranteed price
- the redefinition of eligible suckler-cows for SCP compliance
- changes in premium rights within the DP scheme, and
- intervention purchases under special conditions.

The economic impact of these policy initiatives were analysed in detail and the findings and related recommendations were made available to policy makers and stakeholders. Surprisingly, despite all of the market disruption and turbulence arising from the BSE and FMD predicaments, the annual incomes of Irish cattle farmers were largely maintained throughout this period. This was achieved by a combination of the EU policy initiatives such as the PFD and through periodic and prudent adjustments by the Minister for Agriculture of the phasing of the annual pay-out rates for the DPs.

The policy changes in the Agenda 2000 agreement were scheduled to apply until the end of 2006 and were to be fully phased-in by 2003. A Mid Term Review (MTR) was also planned for 2003 with a general expectation that any further policy adjustments arising would be rather benign. However, post the BSE and FMD crises, it was becoming increasingly evident that EU society was placing a declining value on extra units of food production, or perhaps negative value for beef, but an increasing value on any public goods consumed in the production process. Therefore, an emerging rebalancing issue for future EU policy would be the farm mix of agricultural production and public goods that EU society is prepared to support financially.

Against expectations, when the EU Agenda 2000 MTR proposals were published in 2002 it was recommended that all crop and animal-based DPs be converted into area type payments. This EU policy shift to a decoupled Single Farm Payment (SFP)

outlined in their MTR proposals was almost identical to the concepts, architecture and compliance requirements for the framework template developed by the authors and published under this project and its predecessor.

The EU proposal for the SFP was initially rejected by both the Irish and French authorities and by almost all of the Irish farm organisations plus the agri-business representative bodies. There was a general reluctance to fully embrace the concept of decoupling the product-based payments presumably due to concerns in relation to:

- a probable re-distribution within farming itself of the indirect benefits and costs associated with the animal-based DPs, and
- the future cost and revenue implications for the farm organisations themselves and agri-business arising from anticipated reductions in the volumes of both farm inputs used and outputs produced, together with
- the knock-on impacts on business turnover and margins plus member subscriptions to the appropriate representative organisations.

However, the feedback obtained from a series of seminars and presentations on the MTR decoupling proposals made at farmer and agri-business meetings was rather different. And it was entirely consistent with the earlier reaction obtained to the decoupling concepts and methodology developed within this project and its precursor. For most farmers it was immediately obvious that the SFP could release them from the administrative, economic and bureaucratic straightjacket into which they had progressively become enveloped with the various phases of CAP reform since 1992. After a decade of EU policy reforms, the SFP system provided farmers with their first realistic prospect of maintaining the future value of their existing DPs without the need for endless counts of eligible and non-eligible animals, matching dates of birth of animals with applications for premiums and critical census dates, and two separate methods of determining stocking densities.

Similar feedback through various institutional channels led within months to a *volte-face* on the Irish stance in relation to the SFP proposal, much to the surprise of most of the other EU Member States but especially France which was strongly opposed to the entire decoupling concept. In January 2003, the EU Agricultural Council agreed the CAP reforms including the SFP based on historical individual farm entitlements. In June 2003, however, modifications were agreed which gave Member States a degree of choice in the implementation of decoupling, but Ireland elected to implement the system as originally proposed in the MTR and to its original time schedule.

The EU policy shift from the product-based DP system to the SFP could provide future scope and opportunities for Ireland to differentiate, re-position or even re-brand Irish farm products, especially for beef within EU and in other markets. To advance this prospect, a series of papers on aspects and implications of such a market segmentation approach to the evolving the EU food production policy were prepared and presented at professional international conferences. These papers also elaborated on how the earlier EU policy shift from product-based price support to DP system(s) of various formats had impacted on the economics of production *per se*, resource conservation and the mix of private and public costs and benefits arising.

These papers also suggested that there was greater potential under the SFP for future EU farming systems to better exploit more eco-friendly production methods and produce a more diverse range of food products. However, a comprehensive economic exploitation these opportunities would require:

- a further definition of the compliance criteria for the farming systems, together with
- the formulation of appropriate marketing strategies to exploit the increasingly diverse consumer markets arising from the combination of:
 - the general rise in economic prosperity, and
 - the progressive enlargement of the EU itself.

1. Aims and objectives

The Agenda 2000 agreement, with a projected lifespan of seven years became operational on January 1st 2000. This was essentially a further phase of the MacSharry CAP reforms for beef and cereals initiated in 1992, but with added emphasis on the incentive to extensify farming methods. In both of these reforms the institutional support prices were reduced and direct payments (DPs) were used to compensate farmers for anticipated product price reductions.

Within a decade, the annual EU expenditure on DPs has more than doubled, appendix Table 1. However, the mix of expenditure on individual DPs: Suckler Cow Premium (SCP), Special Beef Premium (SBP) and Extensification Premium (EP) has also changed greatly over the years.

Irish cattle farmers benefited significantly from the DP system and like most of the overall EU, the mix of individual payments drawn-down gradually evolved, see appendix Table 2. In contrast to the overall EU, the revenue mix in Ireland has greater reliance on SBP and extensification, reflecting both the structure of the DPs system itself, the composition of the cattle herd and farming methods used.

Under Agenda 2000, the value of the DPs for suckler (beef) cows, steers and bulls were increased. The increase in the value of the extensification premium was even larger but the criteria for access to this premium were significantly restructured.

The extensification premium scheme was first introduced through the 1992 reforms to compensate specialised beef farmers for the competitive, concentrate feed cost, advantage enjoyed by intensive and semi-intensive beef producers arising from a reduction in the institutional support prices for cereals. The extensification premium system, through its stocking density requirement, provided a direct link between animal numbers and the forage producing capacity of cattle producing farms.

The value of the extensification premium and the access criteria were adjusted periodically since its initiation in 1992, see summary of details in appendix Table 3. Under the Agenda 2000 agreement, Member States were offered a choice of either a single threshold system (Option 1) or a two-tier system (Option 2). Option 1 was contained in the original Agenda 2000 proposals while Option 2 emerged during the negotiations of the agreement itself.

At farm level, the extensification premium was administered as a “top up” payment on animals that had already collected either an SBP or an SCP. The maximum stocking rate eligibility requirement for SBP and SCP was set at 2.0 LU/ha and this was derived with reference to the maximum acceptable 170 kg N/ha from organic sources laid down in the Nitrates directive. The farmers access to extensification payments was restricted to lower stocking densities, but again these have been adjusted periodically, see appendix Table 3.

The calculation of stocking densities for extensification as operated under the MacSharry reforms only took into consideration the animals for which there was an application made for either SCP or SBP. Within this enumeration process, the

possibility existed for the presence on the farm of other “ghost” grazing animals such as those ineligible for DPs, like heifers. But under Agenda 2000, the methods of computing the stocking densities were considerably more stringent compared to the MacSharry period, and therefore there were reduced possibilities for ghost animals to exist on the farm, see appendix Table 4.

Probably of greater significance from an Irish cattle farming perspective was the extent of the evolution of the extensification payment top-up both in value terms *per se* (appendix Table 3) and as a proportion of the animal-based DPs (appendix Table 5), especially under the Option 1 system.

The focus of the research undertaken under this project was to:

- determine the scale of the financial incentive under Agenda 2000 for the individual farmer to extensify production
- compare the financial attractiveness of extensification under Agenda 2000 with that of the MacSharry reform
- identify and quantify the economic and technical implications of the extensification system for cattle production systems, feed resource costs and land use in Ireland
- evaluate the impact of the extensification system on the relative competitiveness of Irish beef production
- develop alternative policies and administrative operational procedures to ameliorate the most undesirable aspects of the existing DP system in preparation for the Mid-Term Review of the Agenda 2000 agreement scheduled for 2002/2003
- develop and prepare more suitable and acceptable longer-term policies for all farm enterprises within the EU, with particular emphasis on the decoupling of all of the product-based DPs.

2. Approach and Methods

In an overall sense this project was an extension in time (2000 to 2004) of project No. 4313 and used a similar approach which had the twin research strategies of:

- devising a more strategic approach to the evolution of a **single** EU beef market through better functioning of the existing CAP system, while simultaneously,
- devising a more suitable long term EU policy in relation to the format and function of the entire DP system of income support.

To achieve the interim objective of a better functioning of the EU “single” beef market under the existing CAP system, an in-depth evaluation of the entire structure of EU policy was undertaken. This also included an evaluation and analysis of various on-going EU policy modification proposals in response to the rapidly evolving market for beef. The resultant findings would be made available as promptly as possible, mainly in non-peer review professional and technical papers, review articles and through seminars and workshop for farmers, agri-business and other stakeholders, including policy makers. The main objective was to directly and indirectly influence policy formation at both the conceptualisation and implementation stages.

During the lifespan of the project five working papers were prepared and published on various aspects of EU policy for beef. Initially, draft working papers were prepared and circulated to a number of experts for critique and comment¹. Following any necessary revisions, the actual working papers were then published to facilitate further public discussion on these very important topics. The authors consistently invited comments and observations on their analysis and conclusions. In addition a number of conference papers and a range of non-peer review articles were prepared to encourage public discussion and feedback on the issues involved and assist in the further development of alternative policy concepts and related implementation procedures.

The topics evaluated in the working papers prepared and published under project No. 4313 were:

- Inter-country comparisons of cattle prices
- An evaluation of the intervention system and the labelling regulations
- An evaluation of the operation of Aids to Private Storage
- Inter-country comparisons for Direct Payments and Total Revenue for beef
- Direct payments and cattle margins in Ireland.

Because of its evolving economic importance for grassland farming and especially cattle farming in Ireland, most of the research undertaken within this project (4831) related to a comprehensive evaluation of the entire extensification payment system with its many implications and ramifications. As a result of this research two additional working papers were prepared and published, these were:

¹ The authors would particularly like to acknowledge the observations and insightful comments received from the following Teagasc staff: Liam Connolly, Michael Drennan, Gerry Keane, Eamonn Pitts, Maurice Roche and Bernard Smyth. Valuable comments and observations were also received from Richard Healy, Head of Beef Division, Department of Agriculture.

- Extensification: an analysis of national and competitiveness issues
- Extensification: implication for cattle farming in Ireland.

Under both the Agenda 2000 proposals and the agreement itself, farm stocking densities were the key determinant in defining access to a range of options for extensification payments. Farmers could enhance their access to extensification payments by adjusting the stocking densities on their farms by either of two alternative methods, shedding animals or renting-in land. In addition to changing the extent of the access to the extensification payment options, adjusting stocking densities could also have significant implications for the optimum on-farm mix of internal versus external feed resources. In essence, land had a cost in relation to feed resource supply but it also had a value with respect to possible access to extra revenue from extensification payments.

A series of computer spreadsheets were developed to estimate the net cost of land for forage (silage and grass) production based on both its estimated value for accessing DPs and its opportunity rental cost. The primary aim was to determine the best stocking density options for maximising the overall farm gross margin². In addition, these programmes provided an estimate of the cost of producing the forage over the relevant range of stocking densities using both of the alternative methods for manipulating stocking densities. This facilitated a cost comparison between internally produced forage for both grass and silage and that for externally purchased concentrate feed.

Previous related research³ in Ireland identified a number of serious structural weaknesses in the EU animal-based DP system for farm income support and alternative policy options were developed. To ameliorate the weaknesses identified, the approach was to develop a generalised EU policy concept for all of the EU commodity-based payments for application throughout the region which could:

- include commodities in addition to beef, and
- increase the acceptability of such a system to other EU Member States and in an international trade (WTO) context.

The administrative operational mechanisms for the Agenda 2000 agreement were essentially a further phase of the MacSharry CAP reforms but with added emphasis on the incentive to extensify farming methods. Therefore, the fundamental structural weaknesses of the animal-based DP system still remained. However, under the

² The inter-disciplinary nature of this research traversed the normal boundaries of concepts, expertise and methodologies. Various colleagues in both Teagasc and UCD provided professional advice on the conceptualisation and analysis of this topic. The co-operation and assistance of the following are gratefully acknowledged: Dr's Gerry Keane, Michael Drennan and Padriag O'Kiely of Grange Research Centre, Billy Fingleton and Ultan Shanahan of Rural Economy Research Centre, and Liam Connolly, National Farm Survey and Athenry Research Centre. Professional advice and support was also generously provided by Dr's Patrick Caffrey and John O'Connell, Faculty of Agriculture, UCD.

³ This related primarily to the capitalisation of much of the value of the animal-based DPs into present and future costs for DP eligible young animals and land rental charges, together with the progressive economic incentive for farmers to reorient their production systems towards the compliance criteria rather than the beef market *per se*, see Dunne 1996f and 1997e, Dunne and O'Connell 1998, 2000abcd and End of Project report No. 4313.

Agenda 2000 agreement the added policy shift from product price support to further increases in the value for the animal-based DPs would be expected to exacerbate the inherent structural weakness of the administrative mechanism already identified.

A longitudinal analysis of trends in the composition of margins for a range of cattle enterprises on Irish farms within the Teagasc, National Farm Survey (NFS) was undertaken to test the hypothesis. The results were presented at various conferences and seminars including the Teagasc annual situation and outlook conference.

All of the research results, plus a series of recommendations were made available at the beef consultative group meetings on Agenda 2000 that was established by the Minister for Agriculture⁴. In addition, presentations on the economic and technical impacts of the Agenda 2000 proposals together with those for the subsequent agreement were also made at meetings and seminars for farmers, agri-business groups, and other stakeholders and policymakers. These meetings and seminars also provided an ideal forum to obtain feedback on the alternative policy options being developed.

The Agenda 2000 agreement was scheduled to apply until 2007 with a Mid Term Review (MTR) in 2002/2003. However, an unanticipated and serious upheaval of the beef market occurred as a result of the 2nd BSE crisis in 2000 and 2001 but this time in continental EU Member States. In response, a range of unforeseen EU policy adjustments were proposed, agreed and implemented forthwith for both the beef price support arrangements and for the DP mechanism. These included adjustments to the structural aspects of the payments *per se* and their compliance access conditions. As a response to emerging market and administrative uncertainties and the consequential information deficits, an analysis was urgently undertaken of the evolving policy adjustments and their immediate and longer-term implications for farm incomes and future beef exports. The findings arising were made available at the *ad hoc* working group meetings in the Department of Agriculture and to stakeholders through various seminars, conferences and publications.

The BSE related policy initiatives undertaken to reduce beef supplies, increase the value of and adjust the conditions for access to DPs served to only further compound the structural weaknesses already identified as inherent in the administration of the animal-based DP system. In essence, the inherent rigidity and weaknesses of the entire administrative system were becoming more and more obvious.

Most likely as a consequence of the rapidly evolving policy complexities and deficiencies, but nevertheless unexpectedly, the EU proposals for the MTR opted for a full decoupling of all of the product-based DPs and the introduction of a system of Single Farm Payment (SFP) entitlements. The SFP incorporated all of the existing product-based DPs and the value of the SFP entitlements would be based on historical DPs received by individual farmers within a specified period.

⁴ Dr. W. Dunne was the Teagasc representative on the consultative committee, a summary list of the main recommendations is contained in End of Project Report No. 4313

The concepts, structure and compliance conditions for the commodity-decoupled SFP were almost identical to that developed, published and articulated at conferences and seminars under Project 4313. Consequently, Irish cattle farmers were reasonably familiar with its structure and its likely impact and consequences. Nevertheless, once the EU proposals were published there were many requests for additional presentations at farmer and agri-business conferences and for non-peer review articles.

While individually⁵ Irish farmers readily accepted the principle of decoupling, other Member States were less enthusiastic about the shift to the SFP system. They were either in outright opposition, like France, or negotiated modifications to the administrative methodology and/or even delayed its implementation in whole or in part. Much to the surprise of a number of other Member States, Ireland chose after an initial lag to agree to implement the entire SFP system and to the time schedule as proposed by the EU. This perceived Irish enthusiasm together with the range of publications recommending full decoupling which emanated from the previous and current research projects resulted in further requests for conference papers from various professional international organisations⁶. The main focus of these papers was to explain the operational logic behind decoupling and the future private and public costs and benefits for farmers, resource use, food markets and society in general.

⁵ In contrast, almost all of the Farm and agri-business organisations in Ireland were initially opposed to the EU shift to the SFP.

⁶ EAAE, EAAP, IRSA

3. Results

The concept of extensification was introduced as part of the switch-over to the direct payment (DP) system of income support under the MacSharry reforms of the beef regime in 1992. The purpose was to encourage extensive production methods and reduce the supply of beef.

Post the BSE crisis in 1996, and particularly under Agenda 2000 the EU income support policy for beef farming became progressively more reliant on Direct Payments (DPs), see appendix Chart A plus appendix Tables 1 and 2. Also, the added emphasis on DPs *per se* was accompanied by significant restructuring of their composition, unit value and the access compliance criteria to encourage farmers to undertake more extensive cattle production methods, see appendix Tables 3 to 5.

As the research findings on the extensification system undertaken under this project shows, Irish farmers and their cattle production systems were particularly well positioned to benefit from such a switch in EU policy emphasis, see appendix Table 2.

The detailed results of the research on extensification undertaken in this project were published by Dunne *et al* in 2000 and 2001 in the form of working papers (working papers No. 6 and No.7). The main findings in these working papers and subsequent research on related aspects and implications are summarised below.

3.1 Extensification

The annual revenue from extensification received by Irish cattle farmers in 1999 was £80 million, approx. €102 million. This is equivalent to a price increase of about 14 pence (almost €0.18) per kilo carcass weight when allocated to all Irish beef production. When this revenue is allocated to beef produced from the relevant animals eligible for extensification as currently administered, namely, males and cull-suckler cows, the price equivalent per kilo is of the order of 25 Irish pence, or €0.32.

The potential revenue for Irish cattle farmers from extensification was greatly increased under Agenda 2000, see appendix Table 2. This arises because the value of the extensification premium itself was increased almost three-fold but the operational rules were changed significantly, see appendix Tables 3, 4 and 5. Furthermore, an EU wide “administrative cap⁷” or ceiling was also placed on the budget allocated to extensification payments.

All of these changes in the values, structures and administrative procedures affected both the ability of individual farmers to access revenue for extensification and the overall distribution of the fixed budget between Member States, (Dunne *et al*, 2000, working paper No 6).

⁷ Therefore, should Ireland’s competitors collectively become more proficient at capturing EPs in the future the EU budget allocation available for extensification could be exceeded. In this eventuality, it is probable that there would be a *pro rata* reduction for everybody in the value of their individual premium entitlements, i.e. an EU wide claw-back mechanism similar in structure to that used by individual Member States when National quotas are exceeded for the SBPs.

3.2 Operational aspects

The extensification premium (EP) operates as a “top-up” on the formal applications for the suckler cow (SCP) and the special beef (SBP) premiums. The changes in the scale of the top-up are summarised in appendix Table 5.

Under the 1992 CAP reform, the EP was payable on farms when the eligible animals for which application was made were collectively stocked at less than 1.4 livestock units (LU) per forage hectare. In this system specific “hidden animals”, such as female cattle etc., could be excluded from the stocking density calculations, see appendix Table 4 for details. Under the Agenda 2000 Agreement significant changes in the operation of the system were introduced. Under this agreement all animals, whether eligible for the premium or not, must be included in the stocking density calculations and heifers, as per the regulations, have the same LU weightings as male animals of the same age. Most of the relevant stocking rate compliance criteria together with the changes are summarised in appendix Table 4.

Assuming that the national land base available for beef production remains largely constant, the inclusion of extra (hidden) animals in the livestock unit calculations under Agenda 2000 could have a significant effect on stocking densities and the resulting ability of farmers to secure revenue from extensification payments. Consequently, the changes in the compliance criteria for individual DPs, and especially extensification, impact significantly on the economics and operation of the overall Irish cattle production system(s). Also, the stocking density calculations are very acute in relation to extensification as the eligibility for these premiums relates to the entire eligible livestock herd and not just to premiums on individual animals. Consequently, there is an animal number multiplier effect with the possibility of either complete eligibility or a zero revenue outcome. Thus necessitating a significant risk management input by the individual farmer.

3.3 Extensification options

In the Fischler proposals for Agenda 2000, published in March 1998, the value of the EP was increased almost threefold to 100 euro (IR£79). While the stocking density limit was retained at 1.4 LU per forage hectare, the stocking density calculations were made more restrictive because all animals had to be accounted for (not just eligible animals). This considerable adjustment in the access criteria significantly altered the economic benefit of the extensification scheme for a range of farm circumstances and had differential impacts for individual Member States. The inter-country impact of this proposed change in the stocking density was evaluated and the results were published in working paper No. 6.

The Agenda 2000 agreement retained this type of calculation but offered Member States a choice of extensification systems with varying rates of premiums. These are:

- **Option 1:** a single payment of €100 (£79) per SBP and SCP collected, provided a stocking density limit of 1.4 LU per hectare is met
- OR**
- **Option 2:** with two levels of payment depending on the stocking density
 - €80 (£63) at < 1.4 LU per hectare, or
 - €40 (£31.50) within the range of 1.4 and 1.8 LU per hectare.

An economic evaluation, published in working paper No.6, showed that:

- **under Option 1**, the incentive to extensify production methods is very high as the value of the EP top-up has increased to:
 - almost 50 percent of the value of the SCP and SBP per LU for suckler cows and bulls respectively, and
 - 67 percent of the value of the SBP per LU for steers

These percentages are over twice what they were under the 1992 MacSharry system, see summary in appendix Table 5.

- **under Option 2** where animals on the farm are stocked at:
 - less than 1.4 LU/ha, the incentive is increased significantly as the top-up ranges from 36 to 53 percent depending on the type of animal, but,
 - in the 1.4 to 1.8 range, the incentive to extensify is relatively small at between 18 and 27 percent, and this is even less than that under the earlier MacSharry system.

Compared to the 1992 reform, the incentive to extensify production under Agenda 2000 Option 2 is more than doubled at the 1.4 stocking density limit but reduced at the 1.8 limit, see summary in appendix Table 5.

3.4 Stocking density changes

The implications for individual Member States of including heifers in the stocking density calculations under Agenda 2000 were evaluated and the detailed results were published in working paper No.6.

The main conclusion from an Irish perspective is that the inclusion of the “hidden animals” will have a greater negative impact on the access to extensification for all the other beef producing Member States, with the exception of Spain, Portugal and Greece. The specific estimates indicate if the land base available for cattle production remains constant, then the inclusion of the “hidden animals” increases the LUs and stocking density by:

- 44% for the EU-15
- a lowly 22% for Greece but a high of 61% for Luxembourg, and
- only by 34% for Ireland.

This is particularly significant in terms of relative potential for access by farmers to the revenue from extensification. Also, it could have additional competitiveness implications in the future since the total EU budget for extensification *per se* is fixed.

The capacity of each country to adjust cattle numbers and cohorts to achieve the stocking density requirements for extensification under Agenda 2000 was analysed and evaluated. The main findings were that the removal of cows is the most effective mechanism for reducing animal numbers as the potential progeny are also eliminated.

Estimates show that the removal of a cow effectively eliminates:

- 1.9 LUs in the EU15, but
- the values for individual Member States range from a high of 2.32 for Ireland to low of 1.37 for Spain.

Consequently, the removal of “surplus⁸ cows” would have a very large impact in making ‘room’ to acquire more extensification revenue in Ireland.

To achieve the 1.4 limit by removing cows:

- Ireland would have to reduce its cow herd by the order of 6 and 10 percent, but
- all other Member States would have to remove two to four times more of their cow herd

With the removal of this number of cows, many Member States; namely Greece, Spain, Austria, Finland, Sweden, and Denmark, would not have sufficient cows, two cows per SBP, to produce the required number of male animals to “draw-down” their quota of SBP. These countries would therefore be effectively trading off SBPs against extensification if they were to try to maintain the MacSharry level of access to EPs. The ratio for Ireland would also be restrictive but the normally lower cow replacement rate in Ireland would reduce but not eliminate this problem.

The adjustment problems for Ireland would be very small to achieve 1.8 stocking density limit. But the 1.8 stocking density limit would draw a very high proportion of the animals and the cattle farms into the administrative ambit of the extensification system. This would greatly increase the administrative stranglehold on cattle production in Ireland and also severely increase the operational constraints for other farm enterprises.

The 1.8 limit would cause significant constraints for all other Member States apart from Greece, Portugal and Spain. The UK, France and Belgium could exploit the option of using the replacement heifers for SCP to minimise, but not eliminate, the need to shed dairy cows to maintain access to EPs.

3.5 Economics of extensification

The economic merits of the two options for extensification were evaluated in relation to their ability to generate revenue for Irish farmers⁹.

The main conclusions arising are:

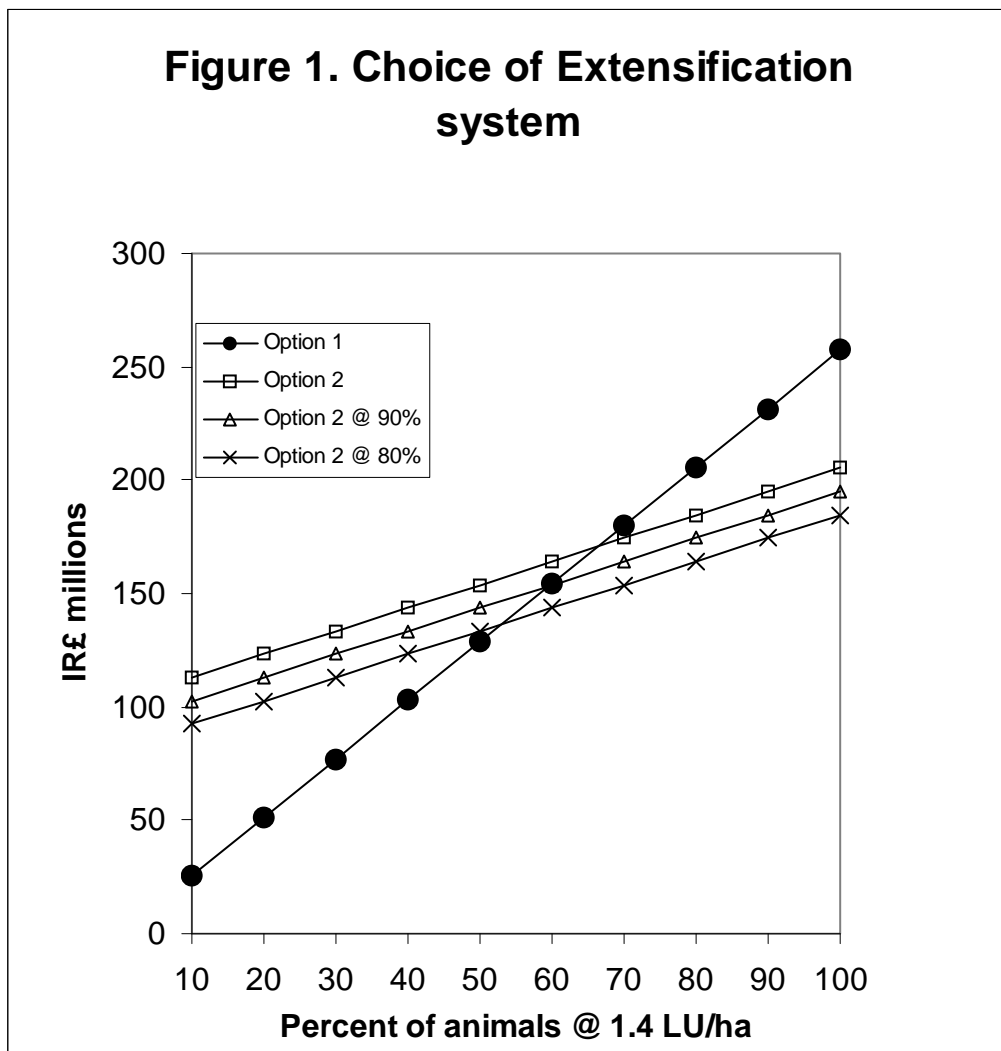
- If all the appropriate animals were stocked on farms at less than 1.4 LU, Ireland could garner a maximum €326 (IR£257) million in revenue from extensification under Option 1, but the maximum that could be collected under Option 2 would be €260 (IR£205) million
- Option 1 would give the most revenue if a high percentage of SCP and SBP animals were stocked at less than 1.4, but the lower the percentage of eligible animals in this category the greater the benefit from Option 2
- Option 2 is best when less than 66 percent of the animals are stocked on farms at a stocking rate of under 1.4, but then all eligible animals would

⁸ “Surplus” to the capacity requirements for fulfilling the National quota entitlements for both milk and SCPs.

⁹ The computational details are available in Dunne *et al*, working paper No. 6.

have to collect extensification at either the 1.4 or 1.8 level of stocking density. Otherwise the breakeven percentage would have to increase *pro rata*

- Option 1 is best if more than 66 percent of the animals were stocked on farms with a stocking density of less than 1.4 LUs when they claimed their SCP or the SBP. In this situation, Option 1 would provide the added advantage that the remaining animals, up to 34 per cent, and the farms on which they reside, could operate outside the administrative ambit and stocking density compliance constraints of the extensification system, (see section 3.6 below)
- At the ‘break-even’ point of 66 percent Ireland would collect €216 (IR£170) million, (see Figure 1). This could be achieved either by collecting €100/head on 66 percent of animals under Option 1 or alternatively, under Option 2, by a combination of €80/head on 66 percent of animals and €40/head on the remaining 34 percent of animals, but



Source: Dunne *et al* (2000) working paper No. 6

- the ‘break-even’ point declines rapidly if a significant proportion of the animals under Option 2 fail to collect even the €40 extensification premium, payable for animals with a stocking density between 1.4 and 1.8. The break-even point declines to almost 50 percent once only 80 percent or less of the animals collect the €40 extensification premium and the total potential revenue declines to €174 (IR£137) million, (see Figure 1).

For a range of practical reasons, there will be some slippage in the ability of Irish cattle farmers to collect the maximum number of both SBPs and SCPs together with their related extensification premium top-up¹⁰. Given the administrative complexity of the extensification system itself, with its separate method¹¹ of estimating stocking densities, some additional slippage would seem inevitable with the EPs.

In contrast to Ireland, cattle farmers in other EU countries were shown to be less economically dependent on DPs because they obtained higher prices for beef and the market-based margin¹² contributed a greater proportion of their total margin. However, this relative position will be more difficult to maintain under Agenda 2000 as beef prices decline and the value of the DPs increase. These contrasting revenue structures have, of course, significant implications for the competitiveness of Irish beef.

3.6 Best extensification option for Ireland

Two of the main factors in determining the best extensification option for Ireland are:

- the relative ability of the options to deliver revenue from extensification, plus
- the implications of the chosen options for inter-country competitiveness for beef production.

¹⁰ Some of the more consequential complications in relation to the drawdown of the revenue from SBPs and SCPs are elucidated in the footnote on appendix Table 2

¹¹ In the calculation of Livestock Units (LUs) to establish the stocking densities for extensification, farmers had to choose in advance between two options. The standard method was to take the number of animals on the holding at certain “census dates” which would be announced retrospectively by the controlling authorities. The alternative, which reduced the administrative burden, was a simplified system whereby farmers undertook to maintain the number of animals below the given stocking density at all times throughout the year. Neither of these methods should be confused with entirely independent method that was used for calculating the stocking density for eligibility for the basic SCPs and SCPs. However, it should be noted that the latter method determined the number of eligible animals collecting SBPs and SCPs on which the extensification “top-up” payment was administered, i.e. one stocking rate system determined the number of animals on which the extensification payment was received, or the scale of the extensification payment, but another set of stocking rate calculations determined whether or not the farm unit has access to the overall extensification payment. In practice, the animals which determined the scale of the payment were not necessarily those that determined the access, this was particularly so on farms where there was a considerable turn-over or “churning” of animals due to trading, e.g. farms involved in cattle finishing and especially winter finishing.

¹² Margin excluding the revenue from DPs

Taking a range of feasible operational adjustments in the Irish cattle sector into account, it was concluded that extensification at the 1.4 limit will likely be collected on:

- almost all of the SCPs since the suckler cows are predominantly located on the more extensive farms in disadvantaged areas, and
- most of the 9 month¹³ SBP for male weanlings from the suckler herd, and
- some of the 21 month SBP, with the exact proportion dependent on the level and structure of the live export trade.

It is probable therefore that farmers' with suckler-cow herds would benefit most if extensification Option 1 were selected. A similar situation will likely prevail on dairy farms with relatively low stocking densities. These could trade heifers and young male animals strategically to ensure that the stocking densities will be less than 1.4LU.

The more heavily stocked dairy farms are most likely to have a problem with SBP animals stocked at the 1.4 limit. A small but significant realignment of the calf and young cattle trading patterns on these farms could achieve the desired result¹⁴. These intensive farms could also specialise in fattening non-DP animals and in finishing beef cattle that have already collected their DPs elsewhere. This way they would avoid the production constraints and the entire bureaucracy of the cattle DP system.

The historical data available¹⁵, pre the Agenda 2000 agreement, on the proportion of "eligible" animals collecting extensification suggested that Ireland was uniquely positioned to benefit from availing of Option 1, which was in fact the original EU proposal. This provided the basis of the recommendations by Dunne and O'Connell, contained in "*strategies and objectives for Agenda 2000 negotiations*" presented at the beef consultative group on Agenda 2000 that was established by the Minister for Agriculture, that Ireland should choose the extensification Option 1. The background details of this and other related recommendations are already published End of Project Report No 4313.

Subsequent data, published by the EU Court of Auditors¹⁶, on extensification entitlement claims for the years 2000 and 2001 provide additional evidence that Ireland would have benefited most by availing of Option 1. The actual out-turn data for a number of years, reproduced in appendix Table 8, show that over 75% of the total animals receiving SCPs and SBPs in Ireland also benefited from receiving extensification premium top-up. Therefore, the proportion of Irish animals collecting extensification has consistently been well in excess of the break-even point of 66

¹³ Under the earlier MacSharry system, the age limits for the SBPs for eligible steers were one month older, at 10 and 22 months respectively.

¹⁴ These intensive dairy farms would indirectly benefit from the extensification revenue because a portion of the premiums would be capitalised into the market value of the additional young (SBP and EP) eligible animals that may now be sold.

¹⁵ Dunne, W. Revenue from direct payments in beef production, pages 149-150, In proceedings Agricultural Research Forum, UCD, April 1997

¹⁶ Official Journal C290, Vol 45, pp 1-22, 2002

percent discussed in section 3.5 above. It is highly probable that the break-even point would also be exceeded under the Agenda 2000 agreement despite the shift to more stringent stocking density criteria.

Nonetheless, following the Agenda 2000 agreement, the Irish authorities chose to implement extensification Option 2, presumably to achieve a greater dispersal among farmers of the financial and farm income benefits of a reduced potential pool of extensification revenue¹⁷.

The financial and farm income benefits of this wider dispersal of extensification revenue may be more apparent than real. As noted earlier, the extensification premium was effectively administered as a “top-up” payment on animals that had already collected either an SBP or an SCP on the same farm. Within any year, the “drawdown” of an SCP was largely tied to a specific farm through the requirement for SCP quota rights, which were only partly tradable. However, no such mobility constraints existed for the SBPs. This mobility had, of course, consequential implications for the final farm destination of the extensification payment which could therefore significantly mitigate administrative policy efforts at targeting the dispersal of extensification revenue towards specific farm types.

As already demonstrated, there are a number of serious inherent deficiencies within the administrative structure of the animal-based DP system and these can result in a substantial indirect redistribution of much of their financial benefits. For example,

“To obtain the payment, the farmer must have eligible land and/or eligible animals. Since the supply of both is finite or controlled, part of the value of the DP goes to the suppliers of the eligible animals and land. The flow of DPs to various groups of cattle farmers creates a counter-flow of DP-induced costs, which increase along the beef production chain. The net effect is that farms involved in finishing cattle are much more dependent on DPs than those in the breeding stages. Farmers finishing cattle may appear to collect their share of DPs, but much of the value of the DP is already built into the price of the animal being bought-in”,¹⁸.

¹⁷ According to the Court of Auditors report paragraph 16

“---- . Six Member States (Germany, Greece, Spain, Austria, Portugal and Sweden) opted to apply only one threshold, so as to pay a higher EPS (Extensification Payment Scheme) subsidy to those producers that have a lower SD (Stocking Density). The other Member States opted for a two-tier system with lower EPS payments. The authorities in Spain and Austria informed the Court that they chose only one SD threshold in order to allow producers to benefit from a higher additional payment, most beef producers in these countries would have no problems in meeting the lower SD. The authorities in France, Ireland and the United Kingdom informed the Court that they chose the two-tier system because it would allow producers to reduce their production over a number of years and/or because it allows more producers to benefit”.

¹⁸ Dunne, W. (1998) Direct payments: case for change. Teagasc, Today's Farm July/August, 1998, pp 36-37.

Since the administration of the extensification premium was essentially piggybacked on the SBP and SCP, all of these structural weaknesses would equally apply to the dispersal of its revenue and the counter-flow of related costs. Furthermore, enhancing access to extensification revenue for the more intensively stocked farms would encourage these farms to retain as many animals as possible to collect both the SBP and the EP, *albeit* at the lower level of €40 per animal. This, in-turn would further restrict the supply of eligible animals to other farms and thereby accentuate the overall premium capitalisation process together with its implications for the dispersal of revenue benefits and counter-flow costs.

Under Agenda 2000, the administrative stranglehold of the DPs in general and their related cost burden on cattle production in Ireland was greatly increased, even if extensification Option 1 was chosen, see section 3.4 above. The additional bureaucratisation arising from the choice of extensification Option 2 severely added to the operational husbandry constraints within cattle farms, intensified the DP capitalisation process *per se* and had knock-on implications for other farm enterprises, see section 3.8, plus sections 3.10 through to 3.13 below. All of this served to further undermine the possibilities for any targeted revenue redistribution objectives among farmers that may arise through the choice of extensification Option 2.

3.7 Maximising revenue

When all these factors are considered, it is probable that Ireland would benefit most from the Option 1 extensification system. Option 1 would:

- yield the highest revenue for the country
- target a higher portion of the revenue towards the supply of cattle from the suckler herd which are of a higher quality relative to cattle from the dairy herd
- target more of the revenue towards the poorer regions of the country where extensive production systems are already used
- release the larger dairy farms and market oriented cattle fattening farms from the stocking density requirement and the administrative bureaucracy associated with the DPs and extensification
- best facilitate the production of quality finished animals for the higher priced beef markets within the EU.

Even with Option 2, an increasing number of Irish cattle farmers will aim for the 1.4 limit to get the higher of the two extensification premiums available, i.e. €80 rather than €40 per eligible animal. The incentive to do this will increase as:

- calves become scarce and expensive as cow numbers decline in response to milk and suckler cow quota limits (see End of Project Report No. 4313)
- the market price of beef declines once the lower Agenda 2000 price supports are implemented
- more farmers opt to join REPS¹⁹, with its associated more stringent nutrient and stocking density compliance criteria
- more farmers secure off-farm employment which will lead to less labour intensive and operationally simpler cattle production systems²⁰.

¹⁹ Rural Environment Protection Scheme, Ireland's agri-environment scheme.

3.8 Feed resource cost implications

For Irish cattle farmers operating under Agenda 2000, the primary management decision incentives within their remit is the ability to gain access to extensification payments through adjusting the stocking density of the farm as a functioning unit. As noted above, farm level stocking densities could be manipulated by adjusting animal numbers and/or animal types through strategic sales²¹ and purchases at critical time periods throughout the year. Alternatively, stocking rates could be manipulated by adjusting the land base farmed by either renting-in additional land or even renting-out land that is surplus to the requirements of the stocking rate target.

The financial gains and losses arising from incremental adjustments to stocking densities by the various alternative methodologies over the relevant range of stocking rates for the DP system (under 1.4 to over 2.0 LU/ha) were modelled in detail using spreadsheets. The results, published in working paper No. 7, showed that many farmers could afford to pay considerably in excess of the prevailing annual market rents (“con-acre” rates) for extra land in order to achieve small, but economically very significant, stocking rate adjustments and thereby to gain access to extensification payments for the entire farm.

Comparable marginal financial and farm income incentives existed in relation to the strategic purchases and/or sales of a range of animal types²². These financial incentives often exceed by multiples the likely market-based margin the farmer could derive from retaining specific animals. In certain respects farmers were being induced into managing an animal trading portfolio as an alternative to beef production *per se*.

In general, the greatest incentive for the individual farmer is to expand their overall land base by renting-in more land as this essentially expands the entire farm business. Since the available land pool for renting is largely finite, this would not be feasible for farmers collectively as land rents will increase accordingly. Either way, the extra land required per animal to provide additional access to the extensification payments has assumed a significant positive rental value for many cattle farmers. Consequently the net farm average rent accruing for land, the renting-in cost less the DP access benefit, could be modest.

But the extra land per animal also added to the internal feed (forage) resources of the farm unit. The positive rent arising from the extra (rented-in) land, would in-turn reduce the economic cost of forage, especially internally produced silage²³. For most cattle production systems availing of extensification, managing surplus grass would

²⁰ For further elaboration, see subsequent paper by Dunne, W. (2006) *Labour market developments and a future in farming*. Paper presented at Special Training Conference for Master Farmers, Hotel Minella, Clonmel, Co. Tipperary October 31, 2006.

²¹ Subject to the animal retention requirement period for the individual DPs.

²² Specific animals could have a LU coefficient of zero, 0.6 or 1.0 depending on age, see appendix Table 4. For each of these there was essentially a trade-off between its market-based margin, premium status, and the monetary value of any associated premiums.

²³ For further details see Dunne 2002abc, and 2005a.

be problematic especially on farms with high quality land. Consequently, this surplus feed would have to be removed for grassland management reasons, most likely in the form of silage²⁴, and almost irrespective of the cost of its off-take. In such situations, there would be very limited technical or economic reasons for cattle farmers to “import” onto the farm externally purchased feeds in the form of concentrates²⁵ almost irrespective of price²⁶.

For Irish cattle farmers at least, it was concluded that the growing institutional complexities of the animal-based DP system, and especially the extensification element of it, was seriously distorting the inherent economics and husbandry of cattle farming and that this income support system was becoming progressively more unsustainable. Thus providing further evidence on the desirability and the need to develop more suitable alternative DP income support systems such as those outlined by Dunne 1996f, 1997b and further elaborated on by Dunne and O’Connell 1998. This theme is addressed in greater detail later, see section 3.13 and thereafter.

3.9 Inter-country competitiveness

Most Member States apart from Ireland already have limited access to EPs, appendix Table 6. Based on the information in section 3.4 above, extending the stocking density to 1.8 would be of much greater advantage to them than it would for Ireland.

Since Ireland is already much closer to its maximum capacity to avail of extensification, any relaxing of the stocking density requirements would be more beneficial to competitors which have much higher stocking densities. Ireland would therefore be compromising part of its competitiveness in cattle production by allowing a significant number of the more intensive non-Irish producers to receive higher margins with its related consequences for future beef supplies and prices. Also, as demonstrated previously in End of Project Report 4313, any increase in beef supplies in an already oversupplied EU beef market has a more pronounced negative effect on beef prices and the margins derived from cattle farming in Ireland.

²⁴ In farm practice this generally took the form of strategic and periodic off-takes of baled silage throughout the growing season. The surplus silage bales could subsequently be sold to other farmers through inter-farm trading, or allocated to another grass or silage based enterprise, like dairying, where these enterprises co-exist with cattle farming. In the latter, the surplus grass or silage could be integrated into the overall feeding system for non-cattle enterprise. This essentially is the equivalent to a cross-enterprise feed subsidisation with the costs attributed to the cattle and the benefit accruing to the dairying.

²⁵ In some situations, such as finishing cattle for specific markets, the use of such higher energy feeds may be technically necessary and/or more efficient in achieving wider logistical and/or management objectives.

²⁶ Apart from situations where silage or grass is produced as an independent cash crop for direct sale, the cost of producing silage or grass *per se* is of academic interest because in most farm situations, these are intermediate products within a livestock farming system. As noted by Dunne, “*estimating the cost of producing silage or grass that include a land charge is dependent on the economic circumstances in which the silage or grass is both produced and used. In cattle farming within the EU, land performs a dual function in that it supplies fodder and provides access to DPs via stocking density compliance criteria.*” The net outcome is largely a reflection of the trade-off between silage yields, direct costs, animal types, animal margins, DPs and land rental charges. For further information on the competitiveness of silage, see Dunne 2002abc and 2005a and/or End of Project Report No.4313.

All the indications are that Ireland may be the only member state in the EU that would benefit from using Option 1 with its single EP and a stocking density limit of 1.4. But, under the final Agenda 2000 agreement, Option 2 became available and it will allow Ireland's competitors to gain further access to EPs. In addition, this extra access, *albeit* to the lower valued EPs, will be of increasing significance in these Member States as the price of beef declines as envisaged under Agenda 2000.

Should Ireland's competitors become even more successful in capturing EPs, there is also the additional complication of the "administrative cap" on the overall EU budget available for extensification. If in the future, the EU extensification budget is exceeded it is probable that the value of the individual EPs will be scaled back *pro rata*. This would certainly not suit Ireland, as it would effectively mean a scaling back of the value of individual EPs in Ireland to finance the EPs for competitors in other countries.

When a choice became available under the Agenda 2000 agreement the authorities in Ireland²⁷ chose to implement Option 2, despite its economic disadvantages, This extensification option had multiple revenue and income distribution implications together with competitiveness consequences for Irish cattle farming in both the immediate years and the longer term.

As already noted elsewhere, there are both direct and indirect financial benefits arising for cattle farmers from the animal-based DP system in the short-term. The individual farmer who claims and receives the actual DPs, basic SBP and SCP plus the appropriate extensification top-up, benefits directly. But indirect revenue and income benefits also arise from the, well recognised and documented, capitalisation of a portion of the value of these DPs into cattle cohort prices together with the related counter-flow of costs along the production chain, see section 3.6 above.

When the capitalisation process itself is combined with the relatively high level of inter-farm trading of animals in Ireland the ultimate destination of the net financial benefits of the DPs become rather diffuse. Consequently, an individual cattle farmer does not necessarily have to collect the animal-based extensification premiums to substantially benefit financially from the system *per se*. Therefore, unlike in other Member States, the high level of inter-farm trading would result in a more ubiquitous distribution of the benefits of the revenue from DPs through cattle prices in Ireland. This outcome would largely arise almost irrespective of the extensification option chosen but, of course, there would be less extensification revenue available for disbursement under Option 2.

The perceptible financial benefit is completely transparent for the farmer who actually receives the DP *per se*, hence the apparent policy attraction of availing of Option 2. In contrast, it is much more difficult to precisely predict both the scale and the ultimate

²⁷ Following the Agenda 2000 Agreement, the Irish authorities chose to implement Option 2, presumably because as the Court of Auditors report states "*it allows more producers to benefit*". This suggests an implicit policy choice of trading away of the possibilities for obtaining extra EU revenue from EPs against a more ubiquitous distribution among Irish cattle farmers of the lower overall financial pool.

destination of the redistribution of the indirect benefits due to the relatively high level of inter-farm trading and the pervasive nature of cattle farming in Ireland.

In general, the main indirect beneficiaries of the capitalisation process are the farmers who breed and/or rear young animals, i.e. primarily farmers with dairy-cow and/or suckler-cow based cattle enterprises. This occurs at the expense of those farmers who may actually collect the animal-based DPs but are at the fattening or finishing stages of the cattle production chain. Therefore, farmers involved in the breeding and rearing segment benefit both directly and indirectly from the animal-based DP system.

The choice extensification Option 2 provided further scope for extra direct benefits for the more intensively stocked farms, most of whom derive their primary farm income from dairying, see section 3.6 above. This additional gain is at the expense of the lowly stocked, economically vulnerable suckler-cow farms with very limited production alternatives, and which are mainly located in disadvantaged areas and for which the extensification system was originally designed. Furthermore, these farms are the major suppliers of high quality young beef animals (weanlings) for both domestic cattle fattening farms and for the live export trade to fattening units in Continental Europe.

In the longer term, the authority's choice of extensification Option 2 would again prove particularly advantageous for the more intensive cattle farmers in Ireland. When the decoupling of the animal-based DPs was implemented in 2005, the value of the future annual Single Farm Payment (SFP) entitlements were based on the actual number and value of animal-based premiums secured in the relevant historical reference period.

Therefore, even in the post decoupling era, the more intensively stocked farms continue to benefit from the choice of Options 2. In contrast, decoupling eliminated the financial benefits for those farmers relying on the indirect capitalised value of the animal-based DPs. Therefore, the choice of extensification Option 2 in effect reduced the potential value of SFP entitlements on farms with suckler cows and further undermined the future export competitiveness of beef derived from the suckler-cow herd in Ireland. These suckler-cow farms in Ireland could, however, receive some financial and competitiveness redress in the future in the event of a shift towards a flat area SFP system²⁸.

3.10 Added complexities

A major negative feature of Option 2 is its ability to suck-into its administrative ambit almost all the farms with stocking densities in the 1.6 to 2.0 range but yet deliver relatively small overall revenue benefits from extensification. Consequently, the compliance criteria for extensification under Option 2 would have a significant administrative burden and added compliance cost effect on almost the entire Irish cattle herd and for land use for other enterprises such as dairying, cereals and sheep.

²⁸ Dunne, W., and Shanahan, U. A flat area-based Single Farm Payment system. p158, *in* summary of papers presented at the Agricultural Research Forum 2008.

On the other hand as outlined in the Court of Auditors report²⁹, by selecting Option 2 it may simply be considered desirable that a very high proportion of the eligible animals in the EU and in Ireland should receive an extensification premium. If this were the objective for Ireland, it would have been preferable and operationally simpler if the related €40 (£31.5) extensification premium was administered by increasing the value of the basic SCPs and SBPs by the equivalent amount. This would have avoided the administratively invasive nature of the 1.8 limit as outlined above. But then perhaps, the payment could not be classified as an incentive to extensify production.

The economics of extensification are increasingly dependent on the relative scarcity of eligible animals and land. As the price of beef declines and the value of the DPs increase, more of the value of the DPs becomes capitalised into the factors specified in the compliance criteria, namely eligible animals and land. This progressively pushes out the non-eligible or non-DP animals (cows surplus to quotas, heifers, male animals that have already collected their SBPs, lambs over 6 months), and low-DP animals (non-replacement beef heifers). Possible mitigation measures were outlined in the recommendations by Dunne and O'Connell (End of Project Report No. 4313) to the Beef Consultative Group in relation to DPs and stocking densities for non-DP and low-value DP animals.

In the future, the number of eligible animals will decline as the market-based margin shrinks, and perhaps may even become negative. This may occur because of a combination of both falling beef prices and rising costs. The rise in costs is in turn driven by the capitalisation process and accentuated by it. Therefore, trying to maintain farm incomes by increasing the value of the EPs, which are also tied to the shrinking-pool of eligible animals further increases this capitalisation process on the animals. These are the very same weaknesses in the existing EU policy system first identified by Dunne in 1996f, and provided the basis for the development of an alternative non animal-based (decoupled) income support mechanism as outlined by Dunne and O'Connell 1998, 1999, 2000cd and 2002a.

3. 11 Overall implications

The Agenda 2000 agreement is largely an extension of the MacSharry reforms made in 1992. The main differences being that the extensification system under Agenda 2000 assumed an added significance both in terms of:

- the relative increase in the value of the payments
- the complexity of the compliance criteria for these payments
- the inter-country competitiveness dimension.

It is generally accepted that cattle farmers' incomes in Ireland have benefited greatly from the CAP reform in 1992 and likewise from the more recent Agenda 2000 agreement³⁰. Yet, the disillusionment about the future for Irish cattle farming

²⁹ CEC - Court of Auditors report (2002) (OJ C290, Vol 45, pp 1-22, 2002)

³⁰ O'Connell *et al* 1999d working paper No.4., Dunne *et al* 1999 working paper No. 5, and Dunne in annual situation and outlook report for cattle, various issues.

continued, even post the Agenda 2000 agreement. As the following sections demonstrate, much of this discontent was a consequence of the ever increasing official administrative intrusion into farming activities and the related administrative burden being placed on individual farmers operating within this system.

3.12 Factors shaping Irish agriculture

Most of this disillusionment is related to the operational aspects and the compliance criteria of the DP income support system³¹. The main benefits and costs associated with the existing DP system as it operates for cattle farming in Ireland were summarised by Dunne and O'Connell, (2000d) as follows:

“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. But, the fundamental issue is that cattle production per se has become uneconomic and is increasingly being wedged in a cost-price squeeze”.

The evidence to support this viewpoint, reproduced in Figures 2 and 3, was derived from the Teagasc, National Farm Survey. As Figure 2 shows, the gross margin³² 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.

Figure 3 shows that 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. The MBNM was declining but still positive until 1996 when it became negative. It became increasingly negative in 1998 and 1999. It may even be positive in 2000 due to an 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 and general costs increase, Dunne and O'Connell, 2000d.

The graphics³³ in Figures 2 and 3 clearly show that even pre the Agenda 2000 agreement, Irish cattle collectively “die in debt” and farmers have been "paying to get the cheque in the post" since 1996.

³¹ The following sections are heavily informed by a paper by Dunne and O'Connell 2000d presented at the Teagasc, Agri-Food Economics conference in 2000, and related publications in the early years of the new millennium.

³² The convention in margin analysis as outlined by Dunne and Shanahan 1999ab is that “... if the net margin is positive the business is profitable but if the gross margin is negative the business is unprofitable. If the net margin is negative but the gross margin is positive then there is a contribution to overheads and the business will continue until profitability improves or a major asset has to be replaced. The increasing importance of direct payments has reduced the value of this type of analysis for predicting the likely response by farmers to changing economic circumstances. To overcome these limitations two further margins were computed which excluded the value of the direct payments from both the gross and net margins to provide a market based gross margin (MBGM) and a market based net margin (MBNM).”

Subsequent research results, also derived from the NFS, verified this increasing reliance of cattle margins on the value of the DPs under the Agenda 2000 agreement, see Figures 4, 5 and 6. Mainly as a consequence of an increase in beef prices, the overall gross margin for cattle increased in 2000 and a small upward trend continued thereafter, Figure 4³⁴.

However, the percentage of this gross margin that was being obtained from the market, the MBGM, resumed its downward trend until 2004, Figure 5. Furthermore, the MBGM for cattle finishing systems³⁵ declined rapidly after 1999 and effectively disappeared³⁶ for some systems in 2003 and 2004, Figure 6.

In the absence of the animal-based DPs, these farms would be considered unprofitable and therefore would cease production forthwith. The persistence of such cattle production systems provides additional evidence to support the earlier observation of an increasing proportion of the value of the animal-based DPs being capitalised into young animal prices. Thereby, seriously distorting the inherent economics of cattle farming by:

- the preservation and maintenance of a better MBGM for cattle rearing systems, such as Single Suckling (SS) and Rearing on Dairy Farms (RDF) in Figure 6, via higher animal sales prices, but
- resulting in an additional cost for the young animals being purchased by the farmers involved in cattle finishing systems, such as Weanling to Store/Finish (WSF) and Stores to Stores/Finish (SSF) in Figure 6, with the consequence of
- persistent negative MBGM for the finishing systems, but these farmers
- must remain in production in order to gain access to the animal-based DPs which constitutes both their “enterprise” margin and income.

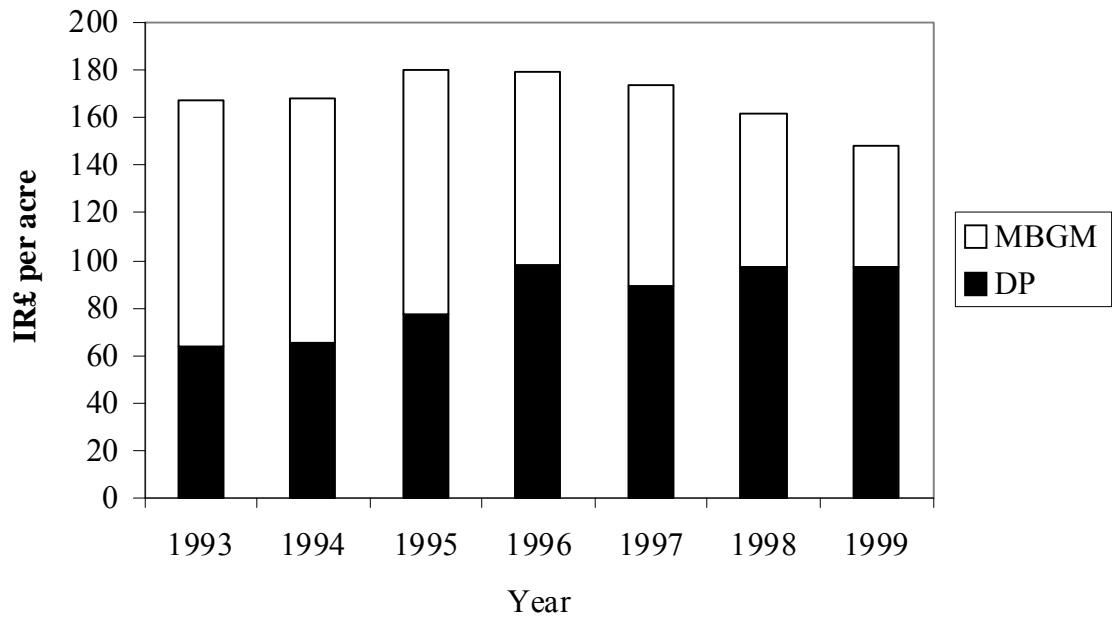
³³ Graphics derived from Dunne, Teagasc, situation and outlook (various years).

³⁴ In contrast to Figures 2 and 3, these data in Figure 4 are expressed in €/ha, the appropriate conversions are €1= IR£ 0.787564 and a hectare is equivalent to 2.471 acres.

³⁵ The selected cattle systems which were derived from the Teagasc, National Farm Survey and presented in Figure 6 are: SS = Single Suckling, RDF = Rearing on Dairy Farms, WSF = Weanling to Store/Finish, SSF = Store to Store/Finish.

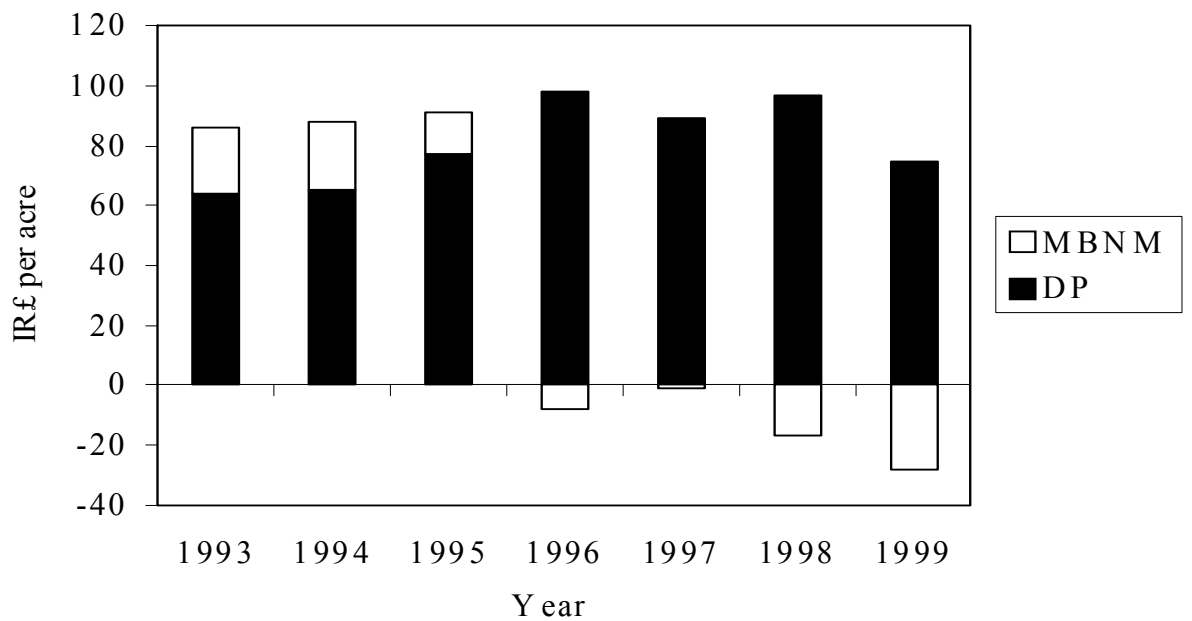
³⁶ These are average values for the selected cattle production systems, consequently there is a high probability that even when the average value is small there will be a substantial number of the farms with negative margins.

Figure 2: Gross margins in cattle farming



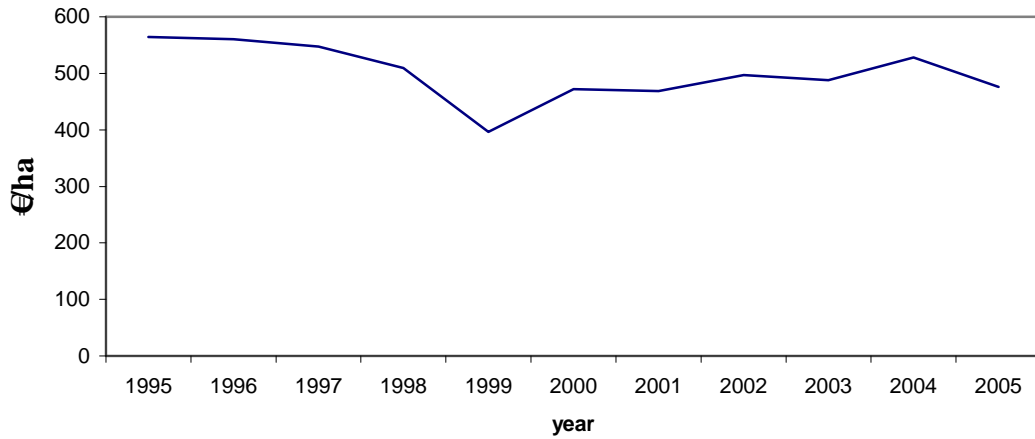
Source: Dunne and O'Connell 2000

Figure 3: Net margins in cattle farming



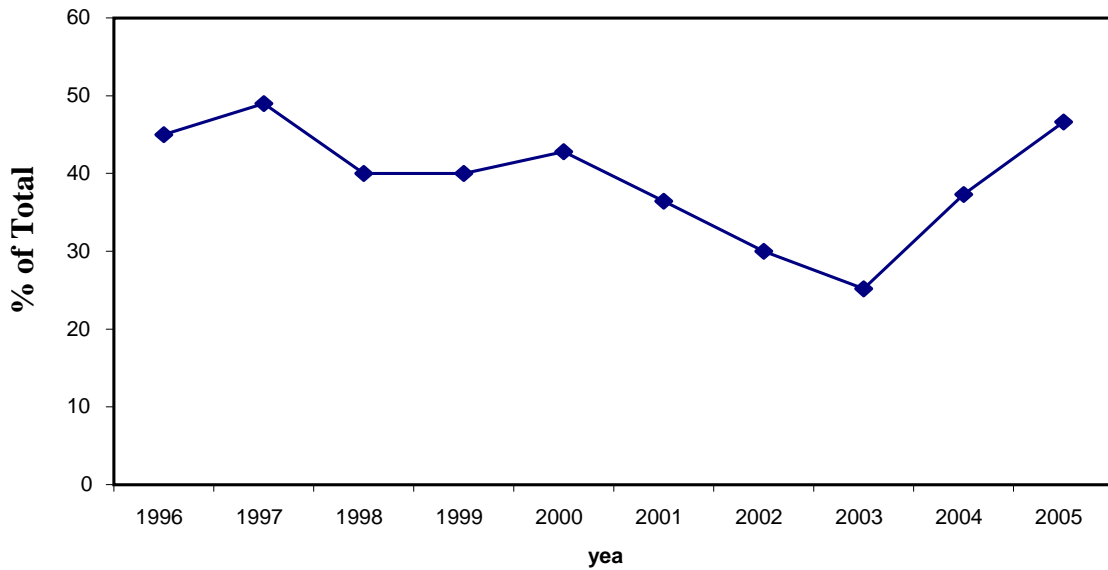
Source: Dunne and O'Connell 2000

Figure 4: Gross margin - All cattle systems



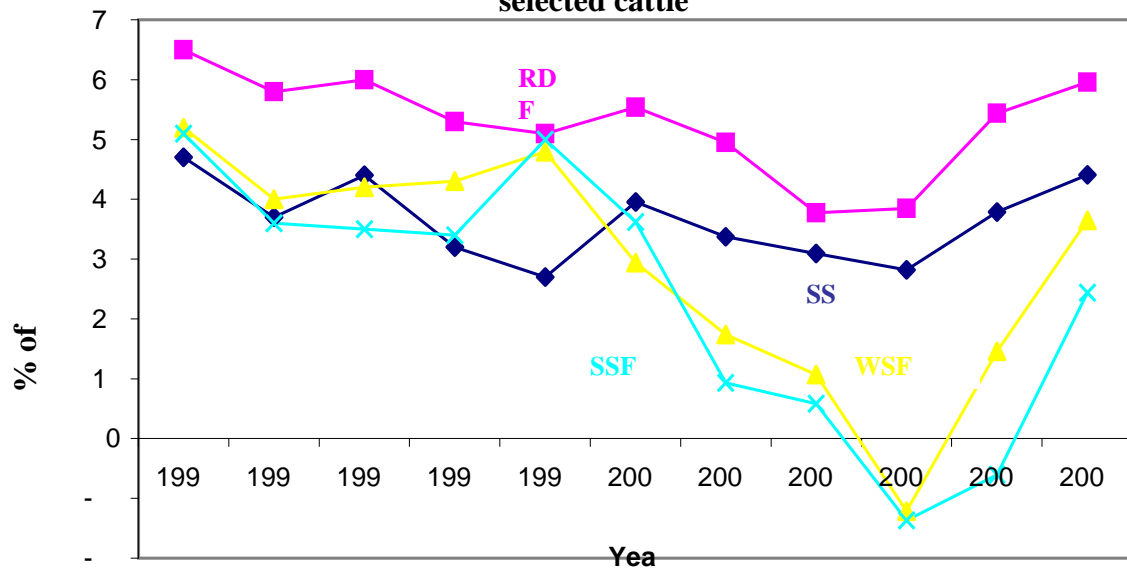
Source: Dunne, The cattle enterprise. In Situation and Outlook (various issues)

**Figure 5: Gross margin derived from market
All cattle systems**



Source: Dunne, The cattle enterprise. In Situation and Outlook (various issues)

**Figure 6: Gross margin derived from market
selected cattle**



Source: Dunne, The cattle enterprise. In Situation and Outlook (various issues)

In general under the various CAP reforms, production costs for the individual cattle farmer have been increasing due to the additive impact of:

- the quota restrictions (milk and suckler-cows) on the supply of calves which results in high calf prices, plus
- the added cost complication for calf prices arising from the capitalisation of a portion of the values of the animal-based DPs
- 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 margin and/or income (Figures 2, 3 and 6)
- the ever increasing land base needed to collect the higher value extensification premium, thereby further increasing marginal land rents, and
- the universal increases in costs arising from subsequent inflation.

Overall, such a DP based income support system provides very limited scope for the individual farmer³⁷ to manage costs and/or adjust production methods to reflect the final market value of the beef carcass.

³⁷ For most Irish cattle farmers almost all of their production decisions were primarily driven by the compliance and administrative requirements of the direct payment system. Therefore, throughout this period there was little scope or financial incentive for the farmers themselves to avail of alternative cattle production enhancing technologies that would increase technical efficiency and productivity. Perhaps such an outcome is not so bewildering because a supply control component was an integral part of the design of the DP system itself. The main supply control aspects were: National and/or specific farm quotas for individual DPs and their related stocking density access compliance criteria plus the supply reduction impact of declining support prices for the beef itself.

The end result is that:

- there is no market return from producing the beef animal *per se*
- 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, but
- costs are increasing and these are mainly driven by the compliance criteria for the direct payments, more expensive calves and land.

Consequently, average incomes within the aggregate cattle sector cannot increase unless the numbers of cattle farmers decline. But cattle farmers, because of their circumstances, have been largely ineligible for the Farm Retirement Scheme (FRS³⁸). 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 cattle³⁹ to get access to the direct payments that are in fact the income.**

A similar economic situation exists for most cereal farmers who wish to scale-up their activities to maintain or increase their income. The margin and almost all of the income is in the direct payment but access to extra scarce and therefore expensive “eligible land” is required to draw down more direct payments.

As a consequence, on many Irish farms, even where land is suitable for a range of enterprises, the optimum enterprise mix is becoming an issue of establishing the best balance between:

- the increasing value of the DPs for the individual enterprises, and
- the costs related to the compliance criteria for the DPs for the individual enterprises.

³⁸ An eligibility requirement for FRS was the farmer must be replaced by a young trained farmer operating on an extended the land base.

³⁹ Within a decade, the economic imperative for Irish cattle farmers arising from the various EU policy developments was radically transformed. Until the mid 1990’s EU policy and economic signals encouraged farmers to produce very heavy carcasses or “elephants of cattle” that could be sold at a guaranteed price into intervention and this provided for the possibility to dispersal the high cost of a restricted supply calves over more kilos of beef, Keane and Dunne, W. (1993), and Dunne 1998a. Subsequently, the component elements of the various CAP reforms, mainly the DP aspects, transposed the economic incentive for farmers to sequentially consider the rather expensive calf as a “premium harvester”, an “environmental manager” and ultimately “the stamp on the envelope” to deliver the DPs with guaranteed increasing value, Dunne 1998a. Should this transposition persist it could have substantial long term implications for both type of calf being produced and the strength of the market interface between beef producers and consumers within the EU. By the end of decade, the main financial incentive for Irish cattle farmers was to secure a stable supply of healthy and low maintenance cost calves, preferably male, to ensure the maximum capture of the appropriate DPs available. Since the economics of producing quality finished cattle *per se* was progressively being marginalised, carcass weights and finish were secondary considerations while the links and market signals between producers and beef consumers were becoming increasingly tenuous.

For farmers, most of the financial rewards are derived from “playing by the rules of the DP system” rather than from practising good animal and grassland husbandry.

In Ireland⁴⁰, when this is combined with the traditional pattern of land inheritance and the increased availability of off-farm employment there will be very limited restructuring of farms, Dunne 2000d, Dunne 2006a. This almost fossilisation of farm structures for cattle and cereals will increase unit costs over a number of years and will have a similar knock-on impact on other farm enterprises.

3.13 Adjustments necessary

Under Agenda 2000, the income for cattle and cereal farmers continued to hinge on very detailed administrative calculations for individual animals and hectares. Cattle farming is increasingly entering an administrative straightjacket with high costs at both farm level and nationally. The nature and structure of both the MacSharry and the Agenda 2000 CAP reforms were such that cattle farmers and farming methods were now severely constrained by what could be described as

“a mixture of administrative, economic and bureaucratic asphyxiation”,
Dunne 2000a.

And, with cattle farming being so pervasive in Ireland, this affects most farmers and other farm enterprises where they must co-exist.

The wide-ranging structural weaknesses in the animal-based DP system were identified following the BSE crisis in 1996, and more suitable alternative EU farm income support systems were proposed, developed and elaborated by, Dunne 1996f and 1997b, Dunne and O’Connell 1998, 1999, 2000cd and 2002a.

As stated by Dunne and O’Connell 1998, page 5:

“the current method of administering DPs, through the eligible animal system, does appear to be an extraordinarily complex and expensive method to arrive at an area payment irrespective of the faults of an area based payment.”

The research summarised in this report confirm the earlier observation by Dunne and O’Connell 2000d, page 29:

“The major weakness in the existing DP system 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 of the payment system*
- *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.”*

The focus of much of the research effort under this and the related earlier project (4313) was to establish how these structural weaknesses identified could be rectified by de-coupling the DPs from eligible animals and by using other methods with more

⁴⁰ Pre decoupling of the DPs in 2005

suitable compliance criteria to distribute the DPs to farmers. The outcome over a number of years of the research was the development and publication⁴¹ of a detailed methodological framework for all land using enterprises within the EU.

Agreement on such major structural shifts and policy reforms are by their nature slow and difficult to achieve at EU level. Consequently, there was a limited expectation that moves in this direction may be possible in the Mid-Term Review (MTR) of the Agenda 2000 reforms due in 2002/03. However, based on the research arising from this project, decoupling of the animal based DPs appeared inevitable within a few years.

In the absence of full decoupling, an interim partial solution which could have been implemented immediately in Ireland was possible, see sections 3.5 to 3.9 above. The Irish authorities, by exercising a preference in favour of the single payment extensification option available under the Agenda 2000 agreement, could provide for:

- all eligible animals on farms stocked at 1.4 LU/ha or lower to obtain an EP of €100 (or IR£79) each, while
- all other farmers and their related land area, steers, heifers, cows and cereal area could be farmed outside the stocking density constraints of the extensification system, and
- the revenue available from extensification in Ireland to be maximised.

However, as discussed in section 3.6 above, the Irish authorities chose to implement extensification Option 2 presumably to achieve a greater dispersal among farmers of the financial payment and farm income benefits of a reduced potential pool of extensification revenue.

Against this policy implementation background, fully rectifying the structural weaknesses of the existing DP system through decoupling was likely to be tedious. Nevertheless, even then, decoupling was probably inevitable as the EU policy environment was constantly adjusting in response to market and farm income challenges but the direction of this change had begun to crystallise at institutional level within the EU.

3.14 The Drivers of Change

Almost a precondition for the successful development and implementation of any future alternative DP systems within the EU is that these must be advanced within a policy context likely to:

- prevail internally within the EU, and against
- the external trade (WTO) background in which such alternative payments systems must function.

This approach was used in developing the multi-commodity framework published by Dunne 1996f and 1997b, Dunne and O'Connell 1998, 1999, 2000abcd and 2002ab. The following is a brief outline of the policy conditions considered likely to prevail for the then immediate future.

⁴¹ See Dunne and O'Connell 1998, 1999, 2000abcd, 2002ab, 2003ab, and 2004a plus End of Project Report 4313.

Over the next decade there will be continued pressure on the EU through the World Trade Organisation (WTO) for freer trade in agricultural products. While it is unlikely that EU farm product prices will be reduced to world levels, except for cereals, the move in this direction will continue.

Under the prevailing WTO agreement, other trading countries have accepted that there is an element of supply control attached to the DP system in the EU. But with the value of the DPs increasing, this acceptance may not be sufficient justification for their continued existence in the next WTO agreement. It is, therefore, likely that the EU will have to develop a new role for the DPs if they are to survive the next round of WTO negotiations which were due for completion about 2003.

As CAP reform progressively shifts from product prices towards DPs, the financial burden for the CAP within the EU switches from consumers to taxpayers. But, already a ceiling exists on the overall size of the EU farm budget. This could become a constraint in the future as the shift to the more budget demanding DPs continues.

The budgetary situation is further compounded by the costs of enlargement to include a number of accession countries from Central and Eastern Europe. The original EU plan was that it would not be necessary to extend the DP system to these new countries since they did not have farm product price reductions and, therefore, would not require the DPs as compensation. However, this EU stance has weakened somewhat as the negotiations have progressed.

Expanding the farm budget to accommodate the added financial burden for extra DPs could become progressively more difficult to justify in the future unless the purpose of the DPs change. As the product price reductions become more distant in time, the idea of paying the DPs as compensation for these historical support price adjustments becomes less sustainable.

Probably in anticipation of these internal and external pressures, the EU had already begun to redefine the role of agriculture in the Union⁴². These multi-functional⁴³ aspects of the CAP were not explicitly incorporated in the final Agenda 2000 agreement, but they will likely shape the role of EU farming in the future.

Already under Agenda 2000, the existing “headage” payments have been decoupled from animals, restructured as area-based payments and linked to land management to prevent environmental degradation. Also, a number of these issues are now being included either directly, like the environmental compliance criteria for the general DPs, or indirectly through the requirement of cross-compliance for various EU farm schemes.

The new EU vision of the multifunctional aspects of the CAP raises very fundamental issues in relation to the nature and purpose of farming in the EU of the future,

⁴² CEC (1997) Agenda 2000, for a stronger and wider Union, Com (97) 200 final.

⁴³ The Agenda 2000 proposals outlined a number of non-price issues in relation to competitiveness, the multi-functional nature of EU agriculture and the CAP generally, for summary see Dunne and O’Connell 2000d and End of Project Report No. 4313.

together with the methods and financial incentives that might be used to deliver this. A recasting of the DPs as payments for the provision of public goods is likely to be a major feature of future EU policy for farming.

The unrelenting drive to improve technical and economic efficiency in livestock farming has a number of indirect costs. The main ones are the negative impacts on the environment, animal welfare, food safety and even ethical issues. These, individually and collectively, are normally referred to as “public costs” since they do not directly affect the farmer and the economic sustainability of the enterprises *per se*. But, these costs accrue to society as a whole and arise from the deterioration or even loss of the “public value” placed on these goods by society as a whole. The new EU vision of the multifunctional aspects of the CAP is an attempt to include these public good values as part of the cost for future agricultural production systems in the EU.

A method by which public goods could be incorporated into a multi-commodity framework for the EU has been developed and outlined in a range of publications⁴⁴ arising from both this project and from the previous related research. Through the incorporation of a range of public good compliance criteria, this type of framework would greatly increase the societal value of the DPs. From a farmer perspective they would have the added advantages of increasing:

- the economic justification for DPs themselves
- the acceptability of the DPs to EU taxpayers
- the justification of the DPs under WTO rules.

This scenario was summarised by Dunne and O’Connell 2000d as follows:

“In the future the DPs could be made conditional on a range of compliance criteria for the entire farm and would most likely include minimum and maximum stocking density limits. Other compliance criteria could incorporate public good and consumer values in relation to food safety, landscape, environment, animal welfare and production technology and possibly even a “homestead” maintenance requirement.

Such changes would incorporate a number of “Public Goods” into farming methods and these are product attributes of growing value as affluence increases. These public good values are becoming a marketable entity in an increasingly affluent society like the EU and in sophisticated markets around the globe.”

3.15 Towards a new Dynamic

Linking the payment to the “production process”, such as the management of the crop or the animal would increase the capitalisation of the payment into the management process itself. But, an increase in the capitalisation of the payment into the farming process is far less restrictive to new entrants than the contemporary arrangement whereby the payments are capitalised into the operating assets of animals and land and consequently future entry costs.

⁴⁴ Dunne 1996f and 1997d, Dunne and O’Connell 1998, 1999 and 2000abcd and 2002ab.

Therefore, linking the payment to the production process *per se* would encourage new entrants into farming, a highly desirable long-term objective. And, assuming the “process” could be properly defined, the payment system could be used to encourage the provision of public services to society. Furthermore, if feasible the “farming processes concept” could be incorporated into the consumers’ image of the farm product, either directly as an intrinsic attribute or through better marketing. Overall, additional economic benefits could arise for the farmers which could manifest itself in the form of expanded product sales and/or higher product prices.

If such a policy framework was implemented, cattle farmers will quickly adjust their production methods in response to any extra revenue they may receive or penalties they might incur. The main administrative operational control point for the DPs would then switch from the individual animal or crop to the overall operational management decisions for the “entire farm”. This would substantially reduce the scale of the administrative burden plus bureaucratic intrusion into the operational details on farms and introduce a whole new dynamic into the entire agricultural policy and farming interface, Dunne and O’Connell 2000d.

Within such a policy administrative system it would be possible to achieve:

- better targeting of the DPs towards economic and social goals by varying the mix of the unit value of the farmer/household and area components of payments used to distribute the DP
- a reduction, by possibly five fold, in the number of administrative control nodes and related costs due to the shift of emphases from the details of the individual animals to the farm as the primary “operational unit” of the farm itself
- a reduction in the “paperwork” for both farmers and the controlling agency. Animals could still 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 its operational characteristics rather than chasing the profile details for 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 compatible with the fundamental economics of the product being produced, and animal numbers and the inputs used will better reflect the value of the product sales

- the production of both the volume and type of products that could respond to the consumers valuation of these products. Unlike the animal-based DPs, this should assist in reconnecting farmers with consumers.

With such a DP administrative structure, after an appropriate time lag⁴⁵, cattle farming would revert to the situation where 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.

Because of the unprecedented nature of this type of administrative arrangement, it is difficult to predict the actual scale of the decline in animal numbers, the level of 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 estimates⁴⁶ would suggest that compared to 1999, the expenditure reductions on purchased feeds and fertilisers could be of the order of €190 and €60 (£150 and £50) million respectively. This would be the equivalent of about one million tonnes of concentrates and about 300,000 tonnes of fertilisers.

A “Foresight” for the beef industry 2010 was prepared and presented at the Teagasc Agri-Food millennium conference in 1999, (Dunne *et al* 1999). This reviewed the range of options for farm income support and the related economic environment. Five possible income support mechanisms were identified but it was concluded that the new concept and general framework for DPs outlined above was the most likely outcome. For Ireland this new concept was described as:

“... using a schedule similar to the Farm Retirement Scheme (FRS) but with the Rural Environment Protection Schemes (REPS) type requirements.”

This foresight also concluded that:

“ the reorientation of the payments will be conducive to the production of “consumer oriented beef” requiring new technological inputs on cattle farms and at processing factories and in marketing.”

Under the scenario for 2010 it was envisaged that there will be three broad categories of beef farmers in Ireland. These are:

- *“2,000 to 3,000 large-scale full-time commercial farmers, specialising in providing finished animals under “contract” to beef processors.*
- *30,000 to 50,000 part-time farmers who are earning a significant portion of their income from cattle farming. These will be primarily engaged in producing calves, weanlings and young animals from both dairy and suckler cow farms and supplying stores or feeder cattle to specialist finishers and for the live export trade.*

⁴⁵ Such a time lag would have multiple components which are partly additive; mainly incorporating administrative, economic and biological aspects.

⁴⁶ Dunne and O’Connell 2000d

- 30,000 to 40,000 other farmers who would be primarily engaged in producing weanlings from the suckler cow herd. Most of these will be earning less than a third of the average industrial wage from farming. This group will be supplying weanlings to other farmers or for the live export trade.

In addition the beef industry would have output of calves and younger cattle from commercial dairy herds.

Category 1 will depend mainly on the marketplace for their income and if they did not exist beef processors would have to become involved in finishing in order to guarantee a supply of slaughter cattle.

Categories 2 and 3 above will be substantially dependent, as at present, on direct payments for most of their farm income.

In the absence of payments that would be tied directly to animals, cattle prices all along the chain will decline. The live export trade for calves and weanlings to the Continent and the store trade to Third Countries will provide competition and ensure reasonable prices for calves and weanlings and finished animals. This trade for calves and weanlings could be affected by the elimination of the calf processing scheme and the consequential realignment of the calf and weanling trade within the EU and by increased supplies from new Member States in the longer term.

Decoupling of the direct payments from the animals and the incorporation of public good values into the direct payments system will allow cattle prices along the chain to reflect more clearly than at present the final market value of the beef⁴⁷.

Reduced supplies are expected as a result of the Agenda 2000 CAP reform changes already agreed and further reductions in supply are likely to occur if direct payments are decoupled from production, as outlined above. In these circumstances we would envisage that the total number of plants involved in slaughtering would be significantly reduced, probably to a level of four or five.

Consumption of beef within the EU is likely at best to remain static, despite the reductions in wholesale prices. Prices in the EU are, however, in a free trade scenario, likely to remain above world market prices. An increase in volume of Irish exports sold on European markets could be expected.

The extent of the reduction of the beef price differential between Ireland and the EU will depend on the combined effect of:

- *the increased market opportunities provided by the decline in supplies in mainland Europe which could arise as a result of the lower prices and decoupled payments*

⁴⁷ For details of subsequent evidence and implications of decoupling on cattle cohort prices and cattle systems margins, see Dunne (2007) in situation and outlook for cattle.

- *the extent to which the production and marketing of Irish beef can be refocused on the demands of the EU marketplace.”*

The Foresight also outlined a series of core technologies and related competencies needed in both the beef production and processing sectors for 2010. These were:

- *“Payment for quality*
- *Consumer safety*
- *Consistent quality*
- *Welfare and environmentally compatible production systems.”*

3.16 The 2nd BSE Crisis

The Agenda 2000 agreement which was scheduled to apply until 2006 was phased-in over three years 2000 to 2003. Over the phasing-in period and in three equal steps, the institutional intervention price for beef was to be reduced by 20% together with implementation of the new and larger DPs.

A renewed level of confidence was beginning to emerge among Irish cattle farmers in 2000 as cattle prices had recovered from the poor levels prevailing in 1999. Suddenly, another BSE crisis occurred in October-November, first in France and later in Germany and Spain. As a consequence, beef consumption levels declined abruptly and markets were effectively re-nationalised and normal trade flows for beef and live cattle were severely disrupted.

These market problems were swiftly reflected in cattle prices in Ireland, especially for cull-cows and the lower grades of cattle. The poor market outlook for beef was also exacerbated by the phasing-in of the planned reductions in intervention prices. Consequently there was much apprehension about the effectiveness of a number of the operational details of the revised EU market support system. These included, the level at which it would be activated, the capacity of the intervention system and/or other supply withdrawal mechanisms to cope with the extent of the immediate oversupply plus the location and characteristics of future market outlets for this surplus beef. Cattle farmers also faced uncertainties, would there be, as in the past, DP “top-ups” to support their incomes or would this be denied due to EU budget constraints. The BSE related market and trading complications were further accentuated in 2001 following a substantial outbreak of Foot and Mouth Disease (FMD) in the UK and a related but isolated incident in Ireland.

In response to the abrupt and sharp decline in demand and consumer confidence, a suite of EU wide supply control and consumer rebuilding measures were introduced. The main EU policy initiatives were:

- the mandatory testing of all carcasses from cattle over 30 months⁴⁸ of age

⁴⁸ While the over 30 months testing was applied to all bovines, its primary aim was as a quality control proxy to identify potentially BSE infected cull-cows with the objective of removing them from the food chain. In Ireland, perhaps inadvertently, a significant cohort of other cattle became enveloped in this BSE testing system. Ireland, unlike most other EU Member States, retained its tradition of steer beef production with its long production chain. Consequently, a significant portion of slaughter animals in Ireland would be over 30 months. Apart from the direct cost of the test itself, the BSE testing system introduced another animal age related market and trading criterion that cattle farmers had to contend with in addition to those in the already encountered via the complicated and highly regulated animal-based DP system. In essence, the market and related cattle prices became segmented

- the immediate introduction of a scheme for Purchase For Destruction (PFD) of over 30 month animals at a guaranteed price⁴⁹
- the redefinition of eligible suckler-cows⁵⁰ for SCP compliance
- changes in premium rights⁵¹ within the DP scheme, and
- intervention purchases under special conditions⁵² (SPS).

In response to this unprecedented situation, a comprehensive review of these EU and other supply control options was undertaken and a series of recommendations were developed and made available in a range of formats to policy makers and stakeholders, Dunne and Shanahan 2001. The main findings are summarised here.

Many of the BSE related policy initiatives undertaken to reduce supplies had serious knock-on implications. For example, the increase the value of the DPs together with the adjustment of the access conditions would further exacerbate the serious structural weaknesses already identified as inherent in the animal-based DP system. For details, see section 3.12 above and the earlier research findings by Dunne 1996f and 1997b, Dunne and O'Connell 1998, End of Project report No. 4313.

based on the 30 month BSE test, and this was particularly so subsequently in periods with an over supply of slaughter animals.

⁴⁹ The PFD scheme agreed in Ireland was partly financed (30%) by the Irish Government. Under this scheme, steers and heifers over 30 months of age were purchased for destruction, without a requirement for the BSE test, by the Department of Agriculture at the equivalent of €2.50/kg carcass weight. Once established, this essentially became a minimum price for most cattle because farmers could simply retain the animals until they reached the required age. The alternatives for the farmers were (a) sell the over 30 month cattle in the open market probably at a discount even allowing for the cost of the BSE test and associated risks or (b) switch to accelerated beef production and incur additional feed costs and market the animals under 30 months which in a surplus market would probably encounter lower price.

⁵⁰ The definition of suckler-cows, for the purpose of collecting the Suckler Cow Premium (SCP), was changed to allow for the inclusion of up to 20% dry heifers. This was later extended to 40% on a voluntary basis but with a 15% compulsory dimension. Depending on the level of uptake, this could reduce almost *pro rata*, after an appropriate time lag, the future supply of calves and beef from the suckler herd. In addition, Member States with unused SCP quota entitlements had them withdrawn for the foreseeable future. The reduction in the supply of calves arising from both of these policy measures would inevitably intensify the problem of the capitalisation of the value of the SBPs into the then reduced supply of young beef animals.

⁵¹ For each Member State, a phased tightening of the stocking density limits was introduced in 2002 and 2003 on the more intensive farms for animals eligible for Special Beef Premium (SBPs) and SCPs to encourage extensive production methods and reduce future supplies. In addition there were further adjustments to the value and conditions for SBPs. Under Agenda 2000, the increase in the value of the single SBP for Bulls proportionately larger than that for the double period SBP for Steers. Now, under the BSE measures a second stage SBP was introduced for "castrate bulls" on a temporary basis to help stabilise the market for bull beef.

⁵² Over 800,000 tonnes of carcass beef was removed from the EU market, most of it was removed entirely from the food chain by a combination of PFD, SPS, FMD and BSE culling schemes. The details of the various policy initiatives and their impacts in Ireland are outlined in the annual situation and outlook report for cattle by Dunne 2001 and 2002.

Since EU budgetary constraints were a factor limiting the choice policy initiatives selected to address the beef market imbalance arising from the BSE crisis, a number of low cost alternative policy options were developed and their relative merits compared⁵³. These were designed to take advantage of the very wide diversity that existed in cattle production systems and producer prices for beef within the EU. Unlike in the past, individual Member States were encouraged to voluntarily contribute 30% towards the cost of the supply control mechanisms implemented within their jurisdiction. This financial facility was only implemented by some Member States, like Ireland, but not by all. Since individual Member States had a financial incentive to avoid direct contributions to product withdrawal schemes, the overall approach was rather patchy and inconsistent. An agreed sharing of the extra financial burden in advance would have facilitated the exploitation of the lowest cost option. For example, an agreed solidarity budget key based on the degree of decline in consumption in each Member State would provide a great national incentive to recover consumption and thereby assist in rebalancing the market more promptly.

Another fundamental weakness in the PFD, and/or similar supply reduction type of approaches, was the inherent direct economic conflict between the cost of reducing supplies and the possible implications for farmers of withdrawing specific animals which were required for the administration of the SBPs and extensification farm income supports. For example, appropriate (lowest cost) slaughter animals may have to be retained by farmers for a specified period to enable them to draw down their animal-based payment entitlements. Although perhaps not immediately appropriate, this conflict could be avoided by decoupling the animal-based payments and administering this revenue using historical records to generate (a) a personalised payment or (b) an area-based payment or (c) as a combination of both (a) and (b), Dunne and Shanahan 2001.

Such a direct payment system had already been devised and proposed by Dunne 1996f and 1997b, Dunne and O'Connell 1998 following the earlier BSE crisis in 1996 and remained one of the longstanding objectives of this research project. The 2nd BSE crisis reaffirmed the almost undisputed logic of the requirement for a complete overhaul of the animal-based DP system within the EU and the decoupling of all of the CAP product-based payments to a more suitable alternative income support system.

These research findings and the corresponding outline recommendations for alternative EU payment systems continued to form the basis of both formal and informal communications with stakeholders at various meetings, seminars and radio

⁵³ For example, as alternatives to the PFD, the cost per tonne to remove a cull-cow beef in Spain was only about €1,500 whereas the cost of removing a similar volume of bull beef in France was €2,670. In addition, if farmers were paid on a per animal basis (i.e. a bounty) this would further reduce the budget cost because it would eliminate the incentive for the farmer to increase carcass weights and simultaneously reduce the feed cost inputs. The cost efficiency of the bounty system could be further improved by using a weekly/monthly or seasonally adjusted bid-offer system which could be easily based on prevailing cattle supplies and beef prices. Such approaches would have the added advantage of attracting the lower quality animals, including those with a higher risk of BSE, and the resulting reduced carcass volume would also minimise both the volume and cost of disposal on the consequential meat and bone meat plus specified risk material.

interviews. As in the past, this also provided substantial encouragement with regard to the acceptability of the decoupling approach being adopted and valuable feedback was obtained which assisted in refining future policy options, compliance conditions and related operational administrative instruments.

Despite all of the market disruption and turbulence arising from the current BSE predicament, the annual incomes of Irish cattle farmers were largely maintained throughout this period. This was achieved by a combination of the EU policy initiatives such as the PFD and through periodic and prudent adjustments by the Minister for Agriculture of the phasing of the annual pay-out rates for the animal-based DPs⁵⁴.

3.17 EU proposals for decoupling

For over a decade, and especially for cattle farming post the 2nd BSE crisis, it was becoming increasingly evident that EU society was placing a declining or perhaps for beef a negative value on extra units of food production but an increasing value on any public goods consumed in the production process. As a consequence, the farm mix of agricultural production and public goods that EU society is prepared to support financially is also changing. Therefore, the level and components of farm income support within the EU in the 21st century should reflect this rebalancing.

In preparation for the upcoming Mid-Term Review (MTR) of the CAP and to meet this evolving domestic and wider EU requirement for an acceptable methodology for the decoupling of the animal-based DPs, an international conference paper was prepared and presented at the Xth EAAE congress in Spain, Dunne and O'Connell 2002. The paper entitled "*a multi-commodity EU policy framework incorporating public good criteria into the direct payment system in agriculture*" outlined the rationale, implications and methodology for decoupling for all of the EU commodity-based DPs. Building on the earlier template for decoupling outlined by Dunne and O'Connell 1998, and 1999 the paper provided additional supporting evidence on the necessity and inevitability of decoupling within the context of the evolving policy and market situation both within the EU and internationally.

Almost simultaneously and against expectations, the EU MTR proposals⁵⁵ for the CAP recommended that all crop and animal-based premiums be converted into area type payments. The EU policy shift to a decoupled Single Farm Payment⁵⁶ (SFP) outlined in their MTR proposals published in 2002 was almost identical to the

⁵⁴ For details see the NFS margins for the cattle enterprise published in the annual situation and outlook report, by Dunne (various issues).

⁵⁵ Commission of the European Communities (2002) Mid-Term Review of the Common Agricultural Policy: Communication from the Commission to the Council and the European Parliament. Council of Ministers, Brussels COM (394) final

⁵⁶ The structure of the SFP was almost identical to that outlined earlier by Dunne and O'Connell in 1998 and 2002. The two main exceptions were: (a) the architecture of the SFP was entirely area-based whereas the Dunne and O'Connell proposal used a combination of a farmer/household element and an area-based component to reduce the extent of the capitalisation of the SFP value into future land values and costs for new farm entrants, (b) the SFP also introduced an additional compliance requirement in relation to farm safety.

concepts, architecture and compliance requirements for the framework presented earlier by Dunne and O’Connell in 1998, 1999 and 2002. In the MTR proposal, all crop and animal-based payments would be converted to future area-based entitlements using the number of historical payments received and the related area farmed in the reference period.

The EU proposal for the SFP was initially rejected by both the Irish and French authorities and by almost all of the Irish farm organisations plus the agri-business representative bodies. Overall, there was a reluctance to fully embrace the concept of decoupling the product-based payments due to concerns in relation to:

- a probable re-distribution within farming itself of the indirect benefits and costs associated with the animal-based DPs which could be significant but were very difficult to quantify, (see section 3.12 above) and
- the future cost and revenue implications for the farm organisations themselves and agri-business arising from anticipated reductions in the volumes of both farm inputs used and outputs produced with knock-on impacts on business turnover and margins plus member subscriptions to the appropriate representative organisations.

As already noted in section 3.15 above, such general concerns had a degree of authenticity, *“it is difficult to predict the actual scale of the decline in animal numbers, the level of 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”*, Dunne and O’Connell 2000d.

However, the feedback obtained by the project team from a series of seminars and presentations on the MTR decoupling proposals made at farmer and agri-business meetings was rather different. Particularly for those farmers heavily reliant on the cattle enterprise, most were well aware that almost all of their gross margin and their total income were dependent on the DPs and their related compliance conditions and costs. Equally, they were concerned at how the evolving DP system had progressively disconnected farmers and farming from the ultimate consumer of their beef. This was entirely consistent with the earlier feedback from farmers over a number of years, post the 1st BSE crisis in 1996, in relation to the original proposed methodology and related compliance conditions for converting all crop and animal-based DPs to a single farm level payment system, Dunne 1996f and 1997b, Dunne and O’Connell 1998, 1999 and 2000d.

For most farmers it was immediately obvious that the SFP could release them from the administrative burden, economic and bureaucratic straightjacket into which they had progressively become enveloped with the various phases of CAP reform since 1992. After a decade of EU policy reforms, the SFP system provided farmers with their first realistic prospect of maintaining the future value of their existing DPs without the need for endless counts of eligible and non-eligible animals, matching dates of birth of animals with applications for premiums and critical census dates, and two separate methods of determining stocking densities.

Similar feedback through various institutional channels led within months to a *volte-face* on the Irish stance in relation to the SFP proposal, much to the surprise of most of the other EU Member States but especially France which was particularly opposed the entire concept of the SFP. In January 2003, the EU Agricultural Council adopted a package of proposals to reform the CAP and introduce the SFP based on historical individual farm entitlements. However, in June 2003, further modifications were agreed which gave Member States a degree of choice in the implementation of decoupling, but Ireland elected to implement the system as originally proposed in the MTR and to its original time schedule.

For Ireland, the EU policy move from the product-based DP system to the SFP could in the future provide scope and opportunities to differentiate, re-position or even re-brand Irish farm products, especially for beef sales within the EU and in other export markets. Various aspects and implications of such a market segmentation approach to the evolving EU food production policy were addressed in a series of papers presented at professional international conferences in the US, Italy, Greece, Norway, Slovenia, and Sweden, Dunne and O'Connell 2002b, 2003a,b, 2004a,b, 2006 and Dunne 2005b. Such diverse audiences provided valuable feedback on both the consequences of the shift to the SFP and possible future evolution of farming and in particular of beef supplies and markets.

In addition to the market aspects, these papers also elaborated on how the EU policy shift from product-based price support to DP system(s) of various formats would have implications for the economics of production *per se*, resource conservation and change the mix of private and public costs and benefits. Future farming systems within the EU could exploit more eco-friendly production methods and produce a more diverse range of food products. However, a more complete economic exploitation of these opportunities will require further definition of the compliance criteria for the farming systems plus the formulation of appropriate marketing strategies for the increasingly diverse consumer markets arising from an increase in general economic prosperity and the progressive enlargement of the EU itself.

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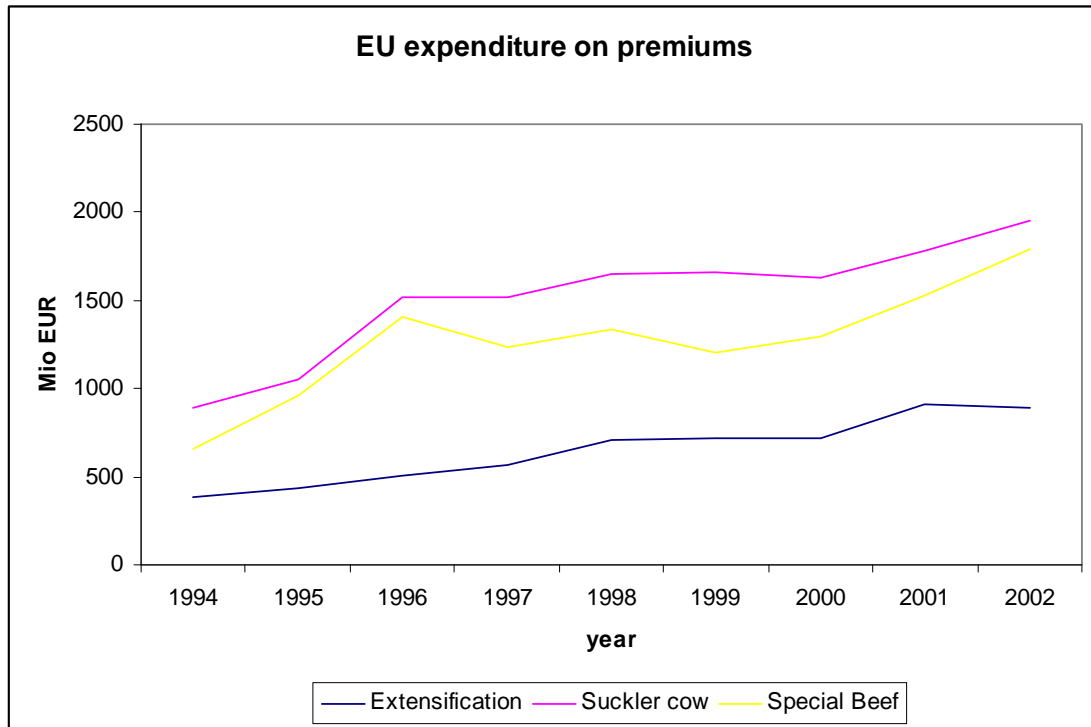
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5. Appendix

Chart A



Source: OJ, C 290, vol 45 (2002)

Table 1: EU expenditure of premiums

Premium type	1994	1995	1996	1997	1998	1999	2000	2001	2002
	<i>(Mio EUR)</i>								
Extensification	389	438	507	569	706	714	715	914	891
Suckler cow	886	1052	1520	1522	1652	1658	1629	1777	1950
Special Beef	657	957	1407	1239	1341	1207	1299	1530	1788
<i>Total</i>	<i>1932</i>	<i>2447</i>	<i>3434</i>	<i>3330</i>	<i>3699</i>	<i>3579</i>	<i>3643</i>	<i>4221</i>	<i>4629</i>
	<i>Change (1994 = 100)</i>								
<i>Extensification</i>	<i>100</i>	<i>113</i>	<i>130</i>	<i>146</i>	<i>181</i>	<i>184</i>	<i>184</i>	<i>235</i>	<i>229</i>
<i>Suckler cow</i>	<i>100</i>	<i>119</i>	<i>172</i>	<i>172</i>	<i>186</i>	<i>187</i>	<i>184</i>	<i>201</i>	<i>220</i>
<i>Special beef</i>	<i>100</i>	<i>146</i>	<i>214</i>	<i>189</i>	<i>204</i>	<i>184</i>	<i>198</i>	<i>233</i>	<i>272</i>
<i>Total</i>	<i>100</i>	<i>127</i>	<i>178</i>	<i>172</i>	<i>191</i>	<i>185</i>	<i>188</i>	<i>218</i>	<i>240</i>
	<i>Individual premiums as % of Total</i>								
<i>Extensification</i>	<i>20.1</i>	<i>17.9</i>	<i>14.8</i>	<i>17.1</i>	<i>19.1</i>	<i>20.0</i>	<i>19.6</i>	<i>21.7</i>	<i>19.2</i>
<i>Suckler cow</i>	<i>45.9</i>	<i>43.0</i>	<i>44.2</i>	<i>45.7</i>	<i>44.7</i>	<i>46.3</i>	<i>44.7</i>	<i>42.1</i>	<i>42.1</i>
<i>Special Beef</i>	<i>34.0</i>	<i>39.1</i>	<i>41.0</i>	<i>37.2</i>	<i>36.2</i>	<i>33.7</i>	<i>35.7</i>	<i>36.2</i>	<i>38.6</i>

Source: Court of Auditors, special report No 5/2002 on extensification premium and payment schemes in the common organisation of the market for beef and veal. OJ, C 290, vol 45, 25th November 2002

Table 2: Expenditure on premiums in Ireland⁵⁷

	1994	1995	1996	1997 1999	2000	2001	2002	2003	2004	2005
	ECU^a million				€^b million					
Extensification	58	71	75		100	144	145	157	163	165
Suckler cow	85	121	144		228	196	257	244	198	101
Special Beef	113	165	202		256	230	271	280	263	246
<i>Total</i>	<i>256</i>	<i>357</i>	<i>421</i>		<i>584</i>	<i>570</i>	<i>673</i>	<i>681</i>	<i>624</i>	<i>512</i>
Slaughter						73	126	141	134	65
	<i>Change (1994 = 100)</i>									
<i>Extensification</i>	<i>100</i>	<i>122</i>	<i>129</i>		<i>172</i>	<i>248</i>	<i>250</i>	<i>271</i>	<i>281</i>	<i>284</i>
<i>Suckler cow</i>	<i>100</i>	<i>142</i>	<i>169</i>		<i>268</i>	<i>231</i>	<i>302</i>	<i>287</i>	<i>232</i>	<i>119</i>
<i>Special Beef</i>	<i>100</i>	<i>146</i>	<i>179</i>		<i>227</i>	<i>204</i>	<i>240</i>	<i>248</i>	<i>232</i>	<i>218</i>
<i>Total</i>	<i>100</i>	<i>139</i>	<i>164</i>		<i>228</i>	<i>223</i>	<i>262</i>	<i>266</i>	<i>244</i>	<i>200</i>
	<i>Individual premiums as % of Total</i>									
<i>Extensification</i>	<i>22.6</i>	<i>19.9</i>	<i>17.8</i>		<i>17.1</i>	<i>25.3</i>	<i>21.5</i>	<i>23.1</i>	<i>26.1</i>	<i>32.2</i>
<i>Suckler cow</i>	<i>33.2</i>	<i>33.9</i>	<i>34.2</i>		<i>39.0</i>	<i>34.4</i>	<i>38.2</i>	<i>35.8</i>	<i>31.7</i>	<i>19.7</i>
<i>Special Beef</i>	<i>44.2</i>	<i>46.2</i>	<i>48.0</i>		<i>43.9</i>	<i>40.3</i>	<i>40.3</i>	<i>41.1</i>	<i>42.2</i>	<i>48.1</i>

Source: ^aEU, EAGGF Guarantee expenditure against the appropriate year

^bDepartment of Agriculture, Fisheries and Food, claims submitted to FEOGA Guarantee Fund - payments by sector and scheme, 1973 -2006, compendium of Irish agricultural statistics, 2008

⁵⁷ The annual “drawdown” of payments depends on the combination of the following:

- the National and/or individual farm quotas for premium rights
- the number and mix of “eligible” animals available within the country each year
- the number of eligible animals available on farms where they can avail of the premiums, conditional on retention periods and/or subject to the SBP 90 animal limit for age categories
- the punctuality with which farmers apply for the payments within each year
- the value of the premium payment per eligible animal for the appropriate year (see appendix Table 3)
- the periodic annual administrative adjustments in the rate of “payout” of the premiums, i.e. size (%) of the 1st payment in the autumn for SCP and SBP, thereby affecting the distribution between consecutive years
- extensification payments in a specific year relate to SCP and SBP claims for the previous year
- the scale of and changes in the annual administrative lags at both farm and institutional level.

Table 3: The evolution of the Extensification premium

EC Regulation No.	Application year	Premium value ¹ ECU/€	Extensification Stocking density LU/ha	SBP/SCP stocking density LU/ha
2066/92	1993	30	< 1.4	
2417/95	1995	36.23	< 1.4	
2222/96	1997	36 52	< 1.4 < 1.0	
1254/99	<i>Single threshold system</i> (Option 1) 2000 onwards	100	≤ 1.4	< 2 but reduced to 1.8 by 2003 ²
1254/99	<i>Two-tier system</i> (Option 2) 2000 and 2001	33 66	≤ 2 and ≥ 1.6 < 1.6	< 2
	2002	40 80	≤ 1.8 and ≥ 1.4 < 1.4	< 1.9 ²
	2003	40 80	≤ 1.8 and ≥ 1.4 < 1.4	< 1.8 ²

¹Values presented were in ECU pre 2000 and subsequently were in €

²As per Regulation 1512/2001, introduced after the 2nd BSE crisis

Table 4: Extensification Premiums and Livestock Units

Extensification		MacSharry		Agenda 2000	
Animal Type	Premium payable	Animals included	Weighting LU	Animals Included	Weighting LU
Dairy cows	No	quota or all	1.0	All	1.0
Beef cows	Yes	only, SCP applications	1.0	All	1.0
Replacement heifer (suckler herd)	yes, under Agenda 2000	Zero	0	up to 20% of SCP applications	0.6 if < 24 months and not calved
Male > 24 months	Yes	only, SBP applications	1.0	All	1.0
Male 6 to 24 months	Yes	only, SBP applications	0.6	All	0.6
Female > 24 months	No	Zero	0	All	1.0
Female 6 to 24 months	No	Zero	0	All	0.6
Male and female < 6 months	No	Zero	0	Zero	0
Ewes	No	only, ewe premium applications	0.15	only, ewe premium applications	0.15
Lambs	No	Zero	0	Zero	0

Notes:

SCP = suckler cow premium

SBP = special beef premium, payable on male (steer) beef animals at 10 and 22 months under MacSharry but under agenda 2000 the age is reduced by one month to 9 and 21 months.

Source: Dunne *et al* (2000) Working paper No. 6

Table 5 Evolution of Premium rates

	SCP ¹	SCP+NP ²	SBP ³ steers	SBP ³ bulls
MacSharry (1992 to 1999)				
Extensification⁴				
“top up” on basic premium (%)	24.6	21.1	32.3	26.4
Agenda 2000 (2002 to 2007)				
Basic premium value change (%)	38.5	33.0	37.2	55.6
Extensification Option 1 <i>(single threshold system)</i> (@ < 1.4LU/ha)				
“top up” on basic premium (%)	50.0	44.6	66.9	47.9
Extensification⁵ Option 2 <i>(Two- tier system)</i> @ < 1.4 LU/ha				
“top up” on basic premium (%)	39.9	35.6	53.3	38.2
@ 1.4 to 1.8 LU/ha				
“top up” on basic premium (%)	19.9	17.8	26.7	19.1

¹ Suckler Cow Premium, basic

² Suckler Cow Premium including National Premium “ top-up” arising from the disbursement from the “National envelope” component which was funded by the EU under the Agenda 2000 agreement

³ Special beef Premium

⁴ In 1996, a larger extensification premium was introduced in situations where the stocking density was less than 1 LU as this was of only limited interest in Ireland it was ignored to reduce the complexity of the analysis

⁵ For simplicity of presentation, the phasing-in period (2000 and 2001) for the new extensification payment and its related stocking rate requirements were excluded.

Source: Dunne *et al* (2000) Working paper No. 6

Table 6: Country profiles of animals collecting extensification

Year	1994 ¹	1994 ¹	1999 ²	2000 ²
Percent collecting extensification on:				
Country	Suckler Cows (SCP)	Special Beef Premium (SBP)	Animals (SCP + SBP)	Animals (SCP + SBP)
Greece	n/a	n/a	53.9	67.9
Portugal	72.7	19.4	67.6	62.4
Spain	n/a	n/a	93.6	68.9
Ireland	88.6	71.8	75.0	78.5
Italy	23.3	18.4	45.9	31.3
Austria	n/a	n/a	62.1	39.3
Finland	n/a	n/a	69.9	56.2
Sweden	n/a	n/a	94.0	68.0
UK	81.6	65.6	80.7	76.0
Germany	59.3	19.9	43.9	28.0
Netherlands	n/a	n/a	19.6	7.5
France	85.2	62.9	81.1	68.2
Denmark	n/a	n/a	25.0	27.7
Belgium	n/a	n/a	27.7	9.5
Luxembourg	82.0	84.3	84.5	48.9
EU15	n/a	n/a	72.1	62.9

Sources: ¹Dunne (1997c), ² Source: Court of Auditors, special report No 5/2002 OJ, C 290, vol 45, 25th November 2002

n/a = no data available