

RERC Working Paper Series 99-WP-RE-02

# The Rural Economy Research Centre Working Paper Series

Working Paper 99-WP-RE-02

# Development of a Strategic Approach for a Single EU Beef Market

# **Direct Payments and Cattle Margins in Ireland**

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Rural Economy Research Centre Ionad Taighde Eacnamaíochta Tuatha

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#### FOREWORD

The inherent nature of cattle farming with its long production cycle makes it difficult to control and predict beef supplies and prices. In Ireland, these inherent characteristics are further complicated by being heavily influenced by EU beef policy in relation to income support and export trading conditions. Major EU policy changes over the last twenty years have affected the export competitiveness of Irish beef. The WTO agreement in 1994 and the more recent international financial crises, especially in Russia, have severely constrained Irish beef exports to traditional and evolving markets in third countries. Various food safety issues, in particular the BSE crisis, have further accentuated the market imbalance in the EU. The decline in consumption combined with the re-nationalised EU beef market has impacted most severely on Irish beef.

Teagasc, in conjunction with University College Dublin, has initiated research to establish how Ireland could develop a more strategic approach to the evolution of a single EU beef market. A number of joint working papers have been prepared on various aspects of EU policy for beef and their implications for cattle prices, direct payments and farm income in Ireland. To facilitate public discussion on these very important topics it has been decided to publish these working papers. The authors of the working papers invite comments and observations on their analysis and conclusions.

Liam Downey Director, Teagasc.

# Development of a Strategic Approach for a Single EU Beef Market

Working Paper No. 5: October, 1999

# **Direct Payments and Cattle Margins in Ireland**

Liam Dunne, Teagasc; Ultan Shanahan, Teagasc; John O' Connell, University College Dublin.

The MacSharry reforms of the CAP in 1992 initiated a major EU policy shift from product price support to a mix of lower prices and increased direct payments (DPs) as the primary method of supporting the income of cattle farmers. The reduction in the support price for beef and the introduction of new and increased DPs were phased in over a three year period up to 1995.

In working paper No. 4 it was shown that cattle farmers in Ireland obtain the lowest beef prices in the EU but they also obtain the highest DPs per kilo of beef produced. The DPs are now a major source of revenue for cattle farmers in Ireland. Under the current system of administering DPs for beef, the value of DPs accruing to the individual cattle farmer is dependent on the possession of certain types of animals that are farmed within defined stocking densities.

This paper evaluates how the changes have impacted on the margins for the cattle enterprise on the farms in the Teagase, National Farm Survey (NFS) over the five year period 1993 to 1997. In particular the evaluation focused on:

- the trends in the size of gross and net margins for a range of cattle systems
- the trends in market based margins
- the contribution of DPs to gross and net margins
- the distribution of DPs among different types and size of cattle farms
- the likely producer response to developing trends.

### Margin analysis

Standard margin analysis evaluates an enterprise gross margin (GM) which is defined as sales less variable costs, and a net margin (NM) which allows for overhead costs. This is based on the following business assumptions:

- if both the gross and net margins are positive the business is profitable
- 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 is restored or major assets have to be replaced.

The increasing importance of direct payments has reduced the value of standard margin analysis for predicting the likely response by farmers to changing economic circumstances. Recognising the limitations of this type of analysis in the circumstances where DPs are a significant source of revenue, Dunne and O'Connell

For More Information on the RERC Working Paper Series Email: <u>CODonoghue@rerc.teagasc.ie</u>, Web: www.tnet.teagasc.ie/rerc/ in 1994 introduced the concept of a market based gross margin in their study on the implications of CAP reform for the Irish feed grain market. This concept was subsequently used in an analysis of efficiency of the beef sector by Dunne and O'Neill in 1995. Since then, market based gross margins have been reported for a number of cattle systems in the cattle section of the Teagasc annual publication Situation and Outlook.

A further development of the market based margin concept was the estimation of the market based net margins by Dunne and Shanahan in 1999. These authors also outlined some of the consequences of changes in market based margins for cattle production in Ireland. The cattle farmer has some control over the market based margins but the unit value of the DPs is fixed by policy makers. Therefore, cattle producers can only adjust their access to the payment but not its unit value. Apart from ensuring access to the DP the main management focus of the farmer is likely to be on trying to optimise the market based margins within the constraints of the compliance criteria for DPs.

#### **Cattle Margins in Ireland**

The margin analysis reported in this paper uses a combination of the traditional form of gross and net margins and the corresponding market based margins. When the value of the DPs are excluded from both the gross and net margins it results in a market based gross margin (MBGM) and a market based net margin (MBNM). These four margins were computed for cattle production systems in the NFS for the years 1993 to 1997.

For the farms in the NFS, it is possible to identify up to nine different cattle production systems. To reduce evaluation to a more manageable level only four systems were selected. The systems examined were: two breeding-rearing systems, "single suckling" (SS) and "rearing on dairy farms" (RDF), and two fattening systems: "weanling to store/finish" (WSF) and "stores to stores/finish" (SSF).

For comparison purposes the data for "all cattle systems" (ALL) and "mid season lamb" (MSL) are also presented in the various tables. All cattle systems, as the name suggests, incorporates the complete spectrum of cattle farming activities including rearing dairy herd replacements. Sheep production is the most probable alternative to cattle in terms of land use in Ireland. The economic interface for cattle and sheep is best represented by presenting the comparable data for mid-season lamb production. In summary, the four margins outlined above were computed for four different categories of cattle production systems in the NFS for the years 1993 to 1997.

#### **Gross and Net Margins**

Gross and net margins for the five years 1993 to 1997 are presented in Tables 1 and 2 respectively. These margins include the revenue obtained from DPs.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Further information on the detailed conditions affecting the margins for the cattle enterprise in individual years may be obtained in the cattle section of the Teagasc publication "Situation and Outlook" 1996, 1997 and 1998.

The most striking feature of cattle farming in this period has been the relatively modest year on year changes in the gross and net margins per acre for the ALL cattle system. This occurred in spite of the fact that the revenue mix of beef prices and DPs changed significantly over this period.

£/acre	1993	1994	1995	1996	1997
Single suckling (SS)	109	146	156	168	162
Rearing - dairy farms (RDF)	177	201	229	217	220
Weanling to store/finish (WSF)	124	125	142	153	135
Stores to store/finish (SSF)	129	144	146	144	136
All cattle systems (ALL)	167	168	180	178	174
Mid-season lamb (MSL)	199	198	168	218	210

Table 1Gross Margins for selected systems

### Table 2Net Margins for selected systems

£/acre	1993	1994	1995	1996	1997
Single suckling (SS)	56	87	87	96	92
Rearing - dairy farms (RDF)	76	98	108	94	103
Weanling to store/finish (WSF)	53	55	66	70	56
Stores to store/finish (SSF)	54	64	61	61	64
All cattle systems (ALL)	86	88	91	89	88
Mid-season lamb (MSL)	115	109	83	127	124

The figures show that the margins for the ALL system and each of the selected component systems reached their peak in either 1995 or 1996 and declined thereafter. This reflects the fact that the DPs under the MacSharry reforms were progressively phased-in over the period 1993 to 1995 but cattle prices did not decline until 1996.

In contrast to cattle, both the gross and net margins for lamb were particularly low in 1995. With the exception of 1995, the margins for lamb were generally higher than those for cattle and were similar to that obtained from the most profitable cattle system, rearing on dairy farms (RDF).

The gross margin increase over the period (1993-1997) was considerably higher, at over £40, for the breeding systems (SS, RDF) than the fattening systems (WSF, SSF), at about £20 (Table 1). Single suckling system performed particularly well over the same period. The stronger increase for the breeding systems reflects both the increasing value of the DPs themselves and their capitalisation into the prices of calves and young animals (Dunne, and Dunne *et al*, 1998).

The pattern of change in net margins was similar to that for gross margins and favoured breeding over fattening systems (Table 2). The net margins for lamb were generally in excess of £100 but cattle only breached this level for the RDF system in 1995 and 1997.

### **Market Based Margins**

A different pattern emerges when the DPs are excluded to generate the market based margins (Tables 3 and 4). The gross margin derived from the market (MBGM) for the individual systems declined over the five years (Table 3 and Figure 1). The decline was particularly acute for the fattening systems where the margins were reduced to about £50 per acre, less than half the figure for 1993 (Figure 1).

In contrast to cattle, the market based gross margin for lamb increased over the period, with the exception of 1995 (Figure 1). Most of the increase in the MBGM for lamb occurred in 1996 and 1997 when the cattle margins suffered a severe reduction due to the decline in cattle prices arising from the BSE crisis in 1996.

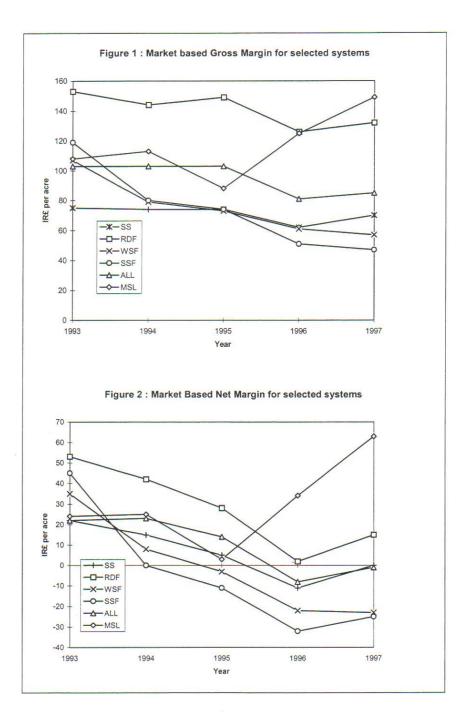
£/acre		1993	1994	1995	1996	1997
Single suckling	(SS)	75	74	74	62	70
Rearing - dairy farms	(RDF)	153	144	149	126	132
Weanling to store/finis	h (WSF)	107	79	73	61	57
Stores to store/finish	(SSF)	119	80	74	51	47
All cattle systems	(ALL)	103	103	103	81	85
Mid-season lamb	(MSL)	108	113	88	125	149

 Table 3
 Market Based Gross Margin for selected systems

The net margins derived from the market (MBNM) for all the selected systems were positive in 1993 and positive or zero in 1994. (Table 4 and Figure 2). But after 1994 the MBNM were:

- negative for the fattening systems, (WSF, SSF)
- non-existent to negative for single suckling (SS)
- generally declining but still positive for rearing on dairy farms (RDF)
- increasing for lamb, especially after 1995 (MSL).

The overall conclusion for the period is that while the revenue from animal sales may have exceeded the production costs for some systems, like RDF, this was not the situation for the fattening systems or for ALL cattle. If the small and rapidly declining MBGM for the fattening systems, shown in Figure 1, persists then the long term prospects for fattening systems looks bleak. The main reason why these systems are now surviving is to provide access to DPs which are the margin.



£/acre		1993	1994	1995	1996	1997
Single suckling	(SS)	22	15	5	-11	0
Rearing - dairy farms	(RDF)	53	42	28	2	15
Weanling to store/finisl	n (WSF)	35	8	-3	-22	-23
Stores to store/finish	(SSF)	45	0	-11	-32	-25
All cattle systems	(ALL)	22	23	14	-8	-1
Mid-season lamb	(MSL)	24	25	3	34	63

### Table 4 Market Based Net Margin for selected systems

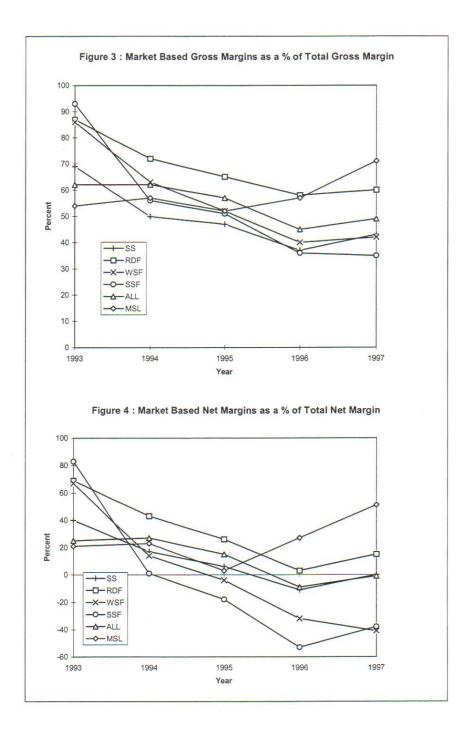
The figures in Tables 3 and 4 demonstrate that since 1996 Irish cattle farmers are already involved in "premium" (DP) farming. If the small and declining market based gross margins and the negative market based net margins, especially for those engaged in finishing cattle, persist over a number of years then farmers are more likely to respond, not unreasonably, to the compliance criteria for the premiums than to the consumer requirements for beef.

### **Responding to the market**

Trends in the proportion of the gross and net margins derived from the market are presented in Tables 5 and 6 respectively. The data in Table 5, presented graphically in Figure 3, show that over the five years examined here the proportion of the gross margin derived from the market by farmers involved in cattle fattening has been reduced by half, to about 40% of the total. Only the RDF system derived more than half of its margin from the market and by the end of the period even this had declined to 60%. Even for this system the decline would have been greater but for the capitalisation of the DPs into calf and young animal prices. In contrast to cattle, lamb producers obtain at least half of their gross margins from the market.

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		1993	1994	1995	1996	1997
Single suckling	(SS)	69	50	47	37	43
Rearing - dairy farms	(RDF)	87	72	65	58	60
Weanling to store/finish	(WSF)	86	63	52	40	42
Stores to store/finish	(SSF)	93	56	51	36	35
All cattle systems	(ALL)	62	62	57	45	49
Mid-season lamb	(MSL)	54	57	52	57	71

Table 5Market Based Gross Margins as a % of Total Gross Margin



Based on these ratios of MBGM to DPs, the economic signal received by cattle farmers from the beef market via the price mechanism is less than half that received via the DP. This is particularly true for those involved in finishing cattle but fatteners are likely to be using similar quality criteria in relation to the animals they purchase from breeder-rearers. Farmers involved in single suckling have now reached a similar end point to those involved in fattening systems but they already had a higher dependency on DPs even in 1993.

The RDF system in 1997 was less dependent on its market based margin than the single suckling system was in 1993. The decline in the proportion of the market based gross margin for the RDF system is particularly serious as the animals being derived from dairy cows would already have poorer beefing qualities. Yet these animals receive the same DP as a high quality animal derived from the suckler herd.

The deteriorating market based margins for even these animals merely reflects the fact that farmers are increasingly unable to reduce costs further to maintain margins as the price of beef declines. Despite the fact that the price of the dairy bred calf is raised by virtue of DP capitalisation the market based margins are declining. The decline in the MBGM in recent years could provide at least a partial explanation for the decline in the conformation and degree of finish on Irish cattle in recent years.

The figures in Tables 3, 4 and 5 support an earlier observation by Dunne (1996) who concluded that costs in the cattle enterprise, particularly calf costs, would increase as the DP-eligible animal link tightened. This is a consequence of a decline in the supply of calves due to the impact of milk quotas and increasing milk yield per cow and the introduction of the calf processing scheme. Another factor increasing costs is the requirement for extra land due to the stocking density limits for direct payments, especially the extensification premium. This increased demand for land has contributed to increased rental rates (con-acre prices) which become an additional cost to cattle producers.

When the proportion of the net margin derived from the market is examined the situation is even more alarming (Table 6 and Figure 4). Before 1995 a significant but declining portion of the net margin for the individual cattle systems was derived from the market. Since 1995 cattle sales have not been sufficient to cover costs and producers, especially cattle fatteners, have had increasingly to use part of their DPs to cover costs.

Mid-season lamb producers, who are also partly dependent on the DPs, still obtain a significant portion of their income from the market and thereby receive a very important price and income signal from the consumer. Unlike cattle, all the DPs for lamb producers are paid on the "possession of" ewes and the decision to produce a lamb is primarily based on the market based return.

	1993	1994	1995	1996	1997
Single suckling (SS)	40	17	6	-11	0
Rearing - dairy farms	69	43	26	3	15
(RDF)					
Weanling to store/finish (WSF)	67	14	-4	-32	-41
Stores to store/finish (SSF)	83	1	-18	-53	-38
All cattle systems (ALL)	25	27	15	-9	-1
Mid-season lamb (MSL)	21	23	3	27	51

### Table 6Market Based Net Margins as a % of Total Net Margin

### Implications

The current method of administering DPs through eligible animals which have to be stocked within defined density limits has resulted in substantial DP induced costs via increased calf prices and land rental charges (Dunne 1996, Dunne *et al* 1998). Therefore the flow of DPs through the cattle sector produces a counter-flow of DP induced costs. This severely constrains the capacity to target the income support at individual or specific groups of cattle farmers under the current administrative system.

The capitalisation of the DPs into calf prices and land rental charges is only an internal farm transfer for owner occupied farms who are involved in integrated calf to beef production. But it creates a major "income leakage" problem for farmers who are only involved in cattle finishing systems especially if they are dependent on rented land. The two major indirect beneficiaries of the capitalisation process are land owners who are renting-out land and the dairy farmers supplying calves. The overall impact is that a significant portion of the revenue for cattle producers is being dissipated via land rental charges and calf prices to both land owners and dairy farmers.

Cattle farmers are being progressively locked into high cost-low output production systems to obtain the DPs which are the actual income. The stage has already been reached where some farmers are unable to retain all of the DP as income. It is not surprising, therefore, that the conformation characteristics and degree of finish of cattle at slaughter in Ireland have deteriorated in recent years.

The beef price-cost squeeze is further accentuated by the fact that cattle farmers must maintain or even increase the numbers of "eligible animals" in order to collect the DPs which constitute the income. Hence, the supply of beef is unlikely to be reduced by decreasing animal numbers and must therefore occur almost exclusively through reductions in carcass weights. This constraint on the supply adjustment seriously limits the ability of the market to adjust to the limited demand of recent years. Since downward supply adjustment is severely constrained, beef prices cannot increase and this provides limited scope to improve the market based margins and the beefing quality of the animals. In summary, the overall market is in an "administrative straight-jacket" and producers have very limited scope to adjust their supplies to respond to the market demand.

While the data are not yet available for years post 1997, it is likely that the situation in Ireland has deteriorated further due to:

- the significant decline in cattle prices in Ireland in the second half of 1998
- the further reduction, by 20%, of the support prices for beef agreed under Agenda 2000, and
- the further increase in the DPs agreed under Agenda 2000.

As agreed under Agenda 2000, the basic DPs are being increased by 30 to 40% (Table 7). The extensification premium (EP) is also being increased by over 100 % but there is a choice between two options for National Governments.

	SCP	SCPNP	SBP
	Suckler Cow	(+ national premium)	(Male beef, steer)
MacSharry system			
(pre Agenda 2000)			
<b>Basic premium</b> (£)	114	138	86
<b>EP</b> < 1.4 LU (£)	28	28	28
% "top up"	24.5	20.2	32.6
Agenda 2000			
Basic premium (£)	158	178	118
EP option 1			
< 1.4 LU (£)	79	79	79
% "top up"	50.0	44.4	66.9
EP option 2			
< 1.4 LU (£)	63	63	63
% "top up"	39.9	35.4	53.4
1.4 to 1.8 LU (£)	31.5	31.5	31.5
% "top up"	19.9	17.8	26.7

Table 7	Direct Payments under MacSharry and Agenda 2000

Even at this stage it is apparent that under Agenda 2000 cattle farmers in Ireland will have little choice but to:

- become progressively more detached from the consumer of their product, and
- primarily focus on the compliance criteria for DPs and
- try to contain costs, within the constraints of the DP system.

**Direct Payments** 

From the foregoing analysis it is clear that the margins and incomes of cattle farmers in Ireland are being mainly driven by DPs. Since the farmer obtains the DPs on the basis of *possession of eligible animals that are farmed within defined stocking densities*, there is a land-use link contained in the DPs for cattle.

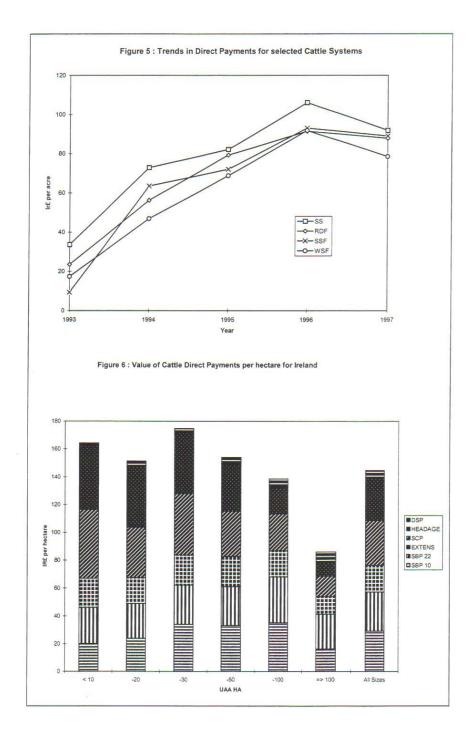
The trend over five years in the value of DPs per acre obtained by farmers with different types of cattle enterprises is apparent from the data shown in Table 8. In the period 1993 to 1995 the DPs per acre increased each year reflecting the phasing-in of the MacSharry reforms. The figures for 1996 and 1997 are distorted due to an administrative decision to increase the size of the first moiety of the 1996 Special Beef Premium (SBP) and the Suckler Cow Premium (SCP) from the normal 60% to 80% of the full payment. This had the effect of increasing the figures for 1996 and reducing them for 1997.

£ per Acre		1993	1994	1995	1996	1997
Single suckling	(SS)	34	73	82	106	92
Rearing - dairy farms		23	56	79	91	88
(RDF)						
Weanling to store/finish	(WSF)	17	47	69	92	79
Stores to store/finish	(SSF)	9	64	72	93	89
All cattle systems	(ALL)	64	65	77	98	89
-						
Mid-season lamb	(MSL)	91	85	80	93	61

#### Table 8Direct Payments for selected systems

What is somewhat surprising is the very small difference in value of the DPs per acre ,maximum of £15 in 1996 and £13 in 1997, between the different cattle production systems (Table 8). The figures for the four individual cattle systems, presented graphically in Figure 5, show that the revenue per unit area from DPs is essentially similar for cattle farmers irrespective of the type of system operated. The small advantage that does exist between the systems accrues to the breeding systems. For example, the RDF system collects approximately the same DP per acre as the fattening system, But, as noted earlier, the RDF system can benefit from the capitalisation of DPs into the prices of the young animals which are a significant component of sales for this system.

The ultimate irony is that the current method of administering DPs through the "eligible animal" eventually results in an almost "flat area payment" system due to the stocking density restrictions. A similar conclusion was drawn by Dunne and O'Connell in 1998 when they examined the value of the DPs for cattle enterprises of different sizes using data from the 1995 NFS (reproduced in Figure 6). In that study the size categories were based on utilizable agricultural area (UUA) available for cattle production whereas the values in Table 8 and Figure 5 are based on adjusted forage area. The UAA data probably better represent the method by which the DPs for cattle are administered in practice.



Dunne and O'Connell in 1998 concluded:

When the mobility of eligible animals through inter-farm trading is combined with the stocking density requirements of DPs for all bovines and particularly extensification, the overall result is that the DPs for cattle become an area based payment. While the composition of the DPs for the various size categories reflect the types of eligible animals on the farms of different sizes, the total value of DPs secured per hectare of UAA is essentially constant over all size categories (Figure 6).

## In its simplest form, the DP is the income and the eligible animals are just traded between farms to find the optimum acre on which the premiums can be drawn down.

Even more significant, Dunne and O'Connell in 1998 concluded that: *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 DPs obtained by the individual farmer are generally a mix of individual payments. These include:

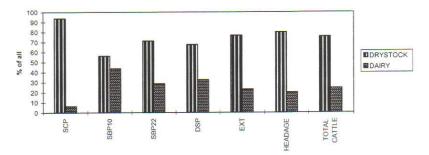
- Suckler Cow Premium (SCP)
- Special Beef Premium (SBP), for male animals at 10 (SBP10) and 22 (SBP22) months of age,
- Extensification (Ext) is a top-up on SCP and SBP if the stocking density is low,
- Headage in disadvantaged areas
- Deseasonalisation Premium (DSP) for male animals slaughtered at certain periods of the year.

The distribution of the individual payments among the different types of farms in the NFS was analysed and the results are summarised in Figure 7. The individual charts presented in Figure 7 show that the type of DPs collected by the different farmers varies substantially.

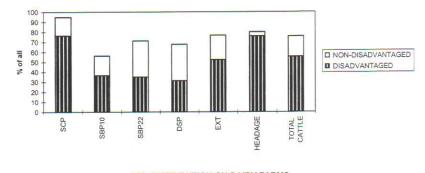
The upper chart in Figure 7 shows that drystock farmers collect over 90% of the Suckler Cow Premium (SCP) and 80% of the "headage" payments but only collect about 70% of the other beef premiums. With the exception of the SCP, dairy farmers collect a significant proportion of each of the individual DPs for beef and almost half of 10 month SBP.

The middle chart shows that most of the cattle DPs obtained by drystock farmers go to the disadvantaged areas but again the proportion varies depending on the type of payment. The disadvantage areas secure a very high proportion of the headage, SCP and to a lesser extent Extensification premium (Ext). In contrast, the non-disadvantaged areas rely more heavily on the DSP, the 22 month SBP and to a lesser extent the 10 month SBP.

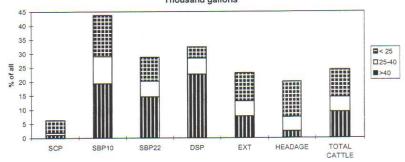




DP's DISTRIBUTION ON DRYSTOCK FARMS



DP's DISTRIBUTION ON DAIRY FARMS Thousand gallons



The lower chart in Figure 7 shows that the larger dairy farmers, over 40,000 gallons, collect about 15 and 20% of the SBPs and DSPs respectively. But the smaller dairy farms (under 25,000 gallons) rely more heavily on the 10 month SBP, extensification and headage.

### Conclusions

In an earlier working paper (No. 4) it was shown that DPs were a major source of revenue for Irish cattle farmers. These payments enabled Irish farmers to maintain their revenue position compared to their EU counterparts.

The current working paper evaluates the impact of the large-scale shift to DPs as a method of income support for Irish cattle farmers and demonstrates the need to supplement the traditional gross and net margin analysis with further margins that exclude DPs. The analysis also shows the increasing, and very high reliance of Irish cattle farmers on DPs for their margins and income. Most cattle farmers obtain DPs directly but some farmers, most notably breeders-rearers, obtain significant indirect benefits from the capitalisation of the value of the DPs into calf and young animal prices.

DPs are a predictable and stable source of income for cattle farmers and have, with the occasional administrative adjustment to the phasing of their annual pay-out, introduced a level of stability in the overall margins and incomes of cattle farmers. With rising costs and declining beef prices most cattle farmers depend on the DPs for their margins and income. Increasingly more cattle farms, especially those involved in cattle fattening, are unable to retain all of the DPs as their margin and income.

As cattle farmers become more and more reliant on the DPs for their margins and income they become progressively more detached from the consumer of their product. To maximise their incomes, the primary focus is on the compliance criteria for the DPs and the containment of production costs within the constraints of the DP compliance criteria.

The main findings and implications can be summarised as follows:

- Irish cattle farmers have a very high and increasing reliance on DPs for their margins and income and this dependency will increase under Agenda 2000
- the switch to DPs has introduced a level of stability in the overall margins and incomes of Irish cattle farmers because the DPs themselves are predictable and the level of pay-out can be adjusted administratively from year to year
- because of the importance of DPs, any economic evaluation the Irish cattle producers supply response must now supplement the traditional gross and net margin analysis with the calculation of further margins that exclude DPs
- the management emphasis in Irish cattle production systems could increasingly move away from consumer requirements to the compliance criteria for the DPs due to the very high dependence by farmers on the DPs for their income
- all cattle farmers obtain DPs directly, but some farmers, most notably breederrearers, obtain significant indirect benefits from the capitalistion of DPs into calf and young animal prices.

- As the shift to DPs, (including extensification) intensifies they become increasingly capitalised into the prices of young animals and land rental charges and while the eligible animal-land link remains this:
  - causes significant leakage of some of the value of the DPs to calf suppliers and land owners
  - limits the capacity of active producers to reduce costs, especially for farmers who are exclusively involved in the fattening stages of production
  - intensifies the dependence on DPs for income, especially those primarily involved in the final production phases
  - intensifies the incentive for farmers to comply with the requirements to ensure full access to all the DPs
  - increases the incentive for farmers to dispose of animals that do not collect DPs or even those that secure only small DPs relative to their contribution to stocking density calculations
  - increases the incentive for farmers to dispose of eligible animals once they have collected the DPs and thereby limit the incentive to ensure good conformation and finish
  - increases the isolation of producers from the market and consumer requirements for beef
  - increases the incentive for farmers to maintain or increase the number of eligible animals to collect extra DPs and income
  - limits the overall capacity to reduce the number of eligible animals which would aid the downward adjustment of beef supply, improve market balance and consequently strengthen beef prices
  - reduces the capacity of policy makers to target income supports to farmers on the basis of need due to the economic incentive to trade animals to find their "optimum stocking density farm" to capture the DPs and also the leakage of part of the value of DPs to calf suppliers and land owners

This paper provides strong evidence that the current method of administering direct payments through the system of eligible animals within defined stocking densities is essentially a "flat area aid" mechanism. This is a poorly targeted income system and it is achieved at high cost in terms of product quality, increased cattle trading and general administration. A further switch to direct payments planned in Agenda 2000 will increase these problems.

It is suggested that the income support system for cattle farmers could better achieve its economic and social goals if the payments were administered as area aid, perhaps with the rate per hectare declining as the area increases. Other options are a combination of a somewhat lower payment per acre with a payment per farmer or alternatively per farm household. An elaboration of these ideas will be undertaken in a future working paper.

#### Acknowledgements

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