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DIRECT PAYMENT MEASURES, COMPETITIVENESS, FARM AND RURAL AREA VIABILITY

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Direct Payment Measures, Competitiveness,

Farm and Rural Area Viability

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SUMMARY

Direct payments are recurring non-market transfers to farmers whether they are production related or not. There are three main types: (a) compensatory allowances (headage), (b) premia and (c) agri-environmental payments. In 1998 total payments amounted to £967.3 million, up from £158.4 million in 1992.

The objectives of this study were to evaluate the effectiveness of these payments in maintaining farm units, their implications for farm efficiency and competitiveness and their impact on sustaining viable farm units and rural areas.

Data from the National Farm Survey shows the average level of payment was £6,670 in 1997 but varied substantially by farm size. For instance, farms over 100 ha on average received £28,207 in contrast with £3,305 for farms between 10 and 20 ha. Similarly, the distribution of payments by different farm systems shows considerable variation with tillage farmers receiving £15,760 and cattle farms receiving less than £6,000. The most significant feature, however, is the extent of the dependency of farm incomes on direct payments. For instance, on tillage and drystock farms these payments represented close to, or even exceeded the family farm income earned. This means that the income from sales are just about sufficient to cover the costs of production; the 'cheque in the post' being the farm income. Without direct payments large segments of the farm population would operate at a loss; a situation which obviously could not be sustained.

The impact of direct payments on farm efficiency and competitiveness is not so clear cut. Analysis of 1996 NFS data shows that the response on cattle farms to increased levels of direct payments was to reduce farm output. However, in terms of farm practice the dominant response was to increase stock numbers and farm inputs, such as feed and fertiliser. This latter response can be taken as adjustments to ensure sufficient stock numbers to maximise the level of payments and not necessarily a

contradiction of reduced output responses. For instance the dominant anticipated response to a decoupled payment system is a reduction in farm inputs and stock numbers, a response associated with the more progressive sector of farmers.

Notwithstanding the present level of these payments it is clear that the viability of farm units on most small to medium-sized drystock farms can not be assured in a farm context only. Increasingly farmers and their spouses are opting for off-farm employment to supplement their household incomes and to sustain the viability of the family farm unit. Ultimately the optimum use of family labour which is marginal or surplus to farm activities, is deployment off the farm; this clearly has a positive influence on the viability of rural areas.

Introduction

The special position of agriculture as a sector to be supported is enshrined in the Treaty of Rome and in the objectives of the Common Agricultural Policy. In the 1992 CAP reform major changes in the way this support is applied were introduced with a swing toward direct payments to compensate producers for losses in lower institutional prices. How these changes impact on farm incomes, farm production and ultimately the rural economy are important questions.

The objectives of this study were:

- to evaluate the effectiveness of direct payments in maintaining the maximum number of farm units
- their implications for farm efficiency and competitiveness, and
- to assess the impact of different measures in sustaining viable farm units and rural areas.

In examining these issues the evolution and rationale of farm support was traced as well as the different measures adopted and their distribution between different types and systems of farming. An econometric analysis to establish the impact of the changing policy environment on aspects of farm efficiency and ultimately competitiveness was also carried out. A survey examined how these changes affected farm production patterns and how likely future changes would affect production decisions and decision-making in farm households. The primary source of data was the Teagasc National Farm Survey (NFS) for various years as well as a specific questionnaire to farm operators in the NFS in 1996.

To supplement these data an in depth analysis of the impact of the policy changes at a county level was carried out. County Mayo, which is essentially a drystock farming region, was selected and a random sample of farmers interviewed in late 1995.

Direct Payments: their evolution and nature

Direct payments are defined as recurring non-market transfers to farmers whether they are production related or not. They are quite distinct from supports which operate through the market system such as higher prices. There are three types of direct payment namely (i) compensatory allowances (headage) (ii) premia and (iii) agri-environmental payments.

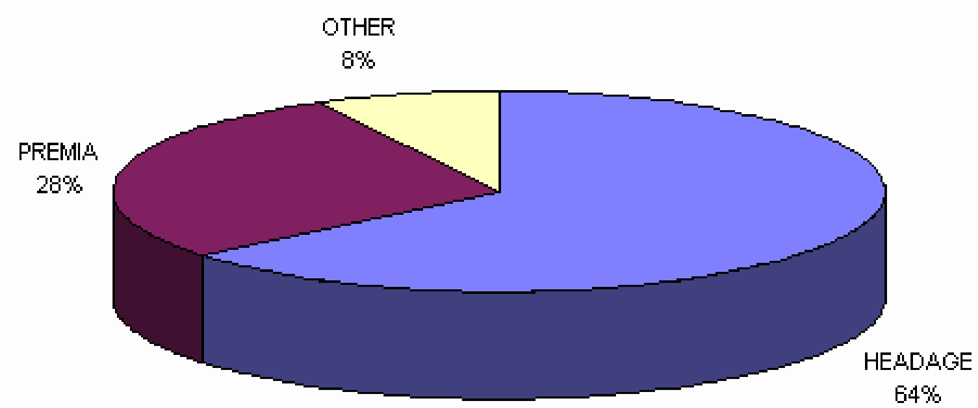
Compensatory payments were first introduced in 1975 and paid on a headage basis for designated types of livestock in the Disadvantaged Areas. The rationale is to compensate farmers in difficult farming regions to maintain "reasonable incomes for farmers in such areas". These payments are capped, modulated (higher levels paid for the first designated number of stock) and subject to stocking criteria. For instance, in 1999 only the first 60 livestock units qualify for the full level of payment with a maximum payment per holding of £4,000 if a stocking rate of 1.4 livestock units per forage hectare or less is attained.

Premia, which were first introduced in 1980 for suckler cows were given major prominence in the 1992 CAP reform. The rationale for their increased level is to compensate producers for lower prices due to changes in market support. They apply to all parts of the country and are paid in addition to headage payments. Premia include eight measures (a) suckler cow (b) special beef (c) deseasonalisation (d) extensification (e) ewe, (f) calf processing (g) cereal and (f) set-aside. Suckler cows and ewe premia are paid on the basis of individual farm quotas and the level of premia paid to individual producers is not capped, apart from the special beef premia where a maximum number of 90 male animals is applied. Premia payments are not modulated and are 100 per cent supported under the EU FEOGA (Guarantee Section) of CAP.

The principal agri-environmental measure (adopted in 1994) is the Rural Environmental Protection Scheme (REPS) which is a voluntary scheme available to farmers on the fulfillment of specified environmental criteria. Payments are made on a per hectare basis up to a maximum of 40 ha or approximately £5,000 per annum.

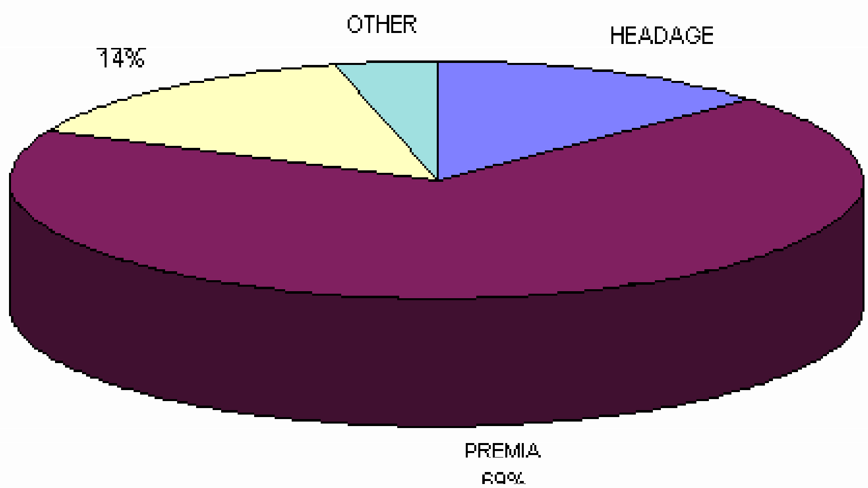
The level and distribution of direct payments are shown in Fig. I for 1992 (just prior to CAP reform) and Fig. II for 1998.

Figure 1
1992



Total £158.4 m

Figure 2
1998

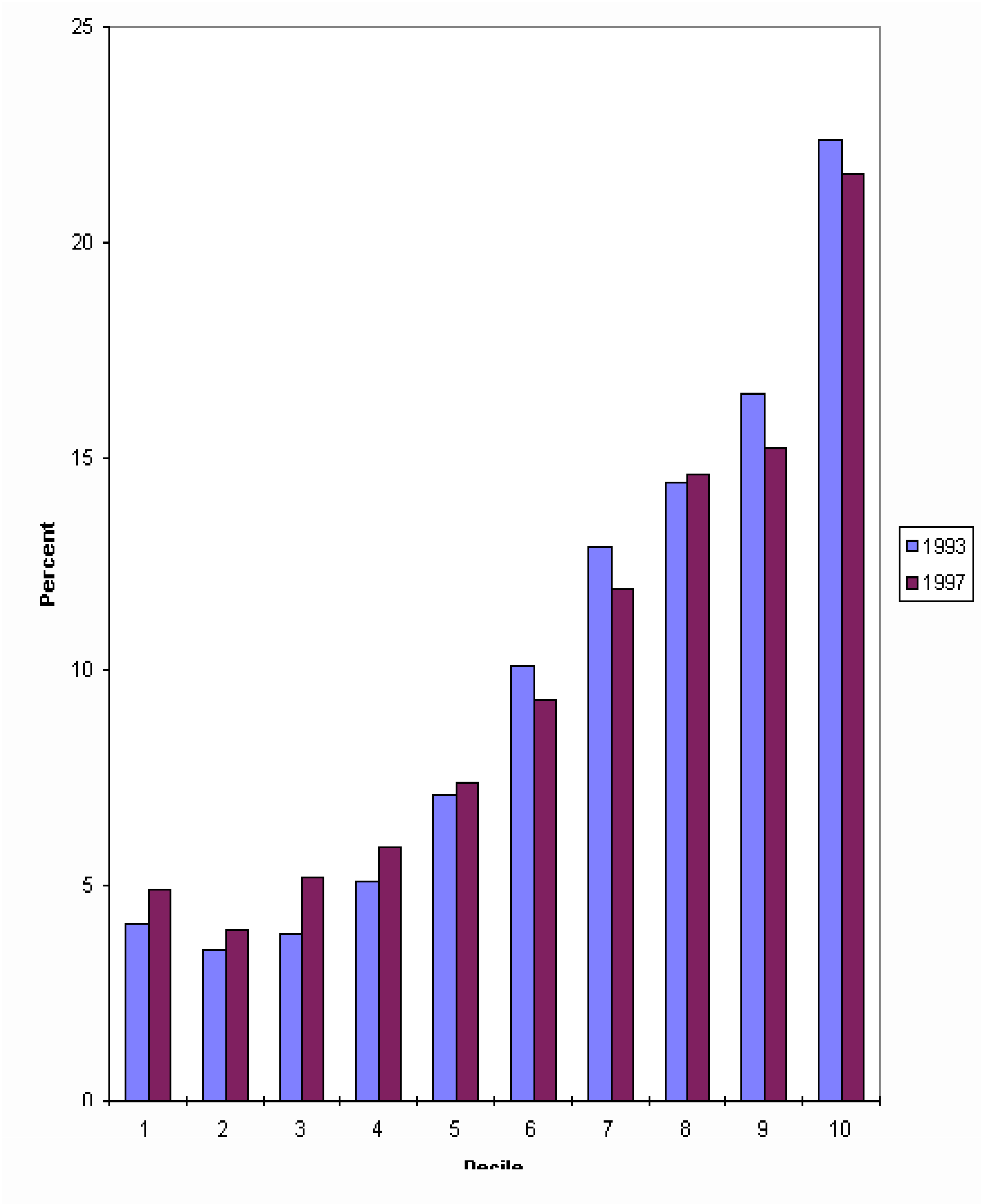


Total £967.3 m

The level of direct payments increased from £158.4m in 1992 to £967.3 in 1998, or more than five times. The main increases were in the premia and in REPS.

One of the principal reasons for the 1992 CAP reform was the disproportionate destination of direct payments to the largest farms. Figure III is a summary of the distribution of expenditure on direct payments by farm income decile for 1993 and 1997.

Fig. 3



Clearly there is a strong association between the level of farm income and the amount of subsidies received. Similarly it is clear that this distribution pattern has persisted by and large since CAP reform.

Further insights into their destination are obtained by examining farm size and system for 1997, the latest available data (Tables 1 and 2).

Table 1: Average level of direct payment by farm size and as a proportion of Family Farm Income 1997

System	Direct Payments (£)	% of FFI
<10	1,315	58
10<20	3,305	77
20<30	5,511	57
30<50	8,080	54
50<100	13,816	55
100+	28,207	76
Hill farms	6,341	93
All Farms	6,670	62

Source: Teagasc NFS, 1998

Table 2: Average level of direct payments by farm system and as a proportion of Family Farm Income, 1997

Size (ha AAU)	Direct Payments (£)	% of FFI

Dairying	4,435	22
Dairying and Other	8,722	50
Cattle Rearing	5,892	105
Cattle and Other	5,624	98
Mainly Sheep	7,258	94
Mainly Tillage	15,760	107
All	6,670	62

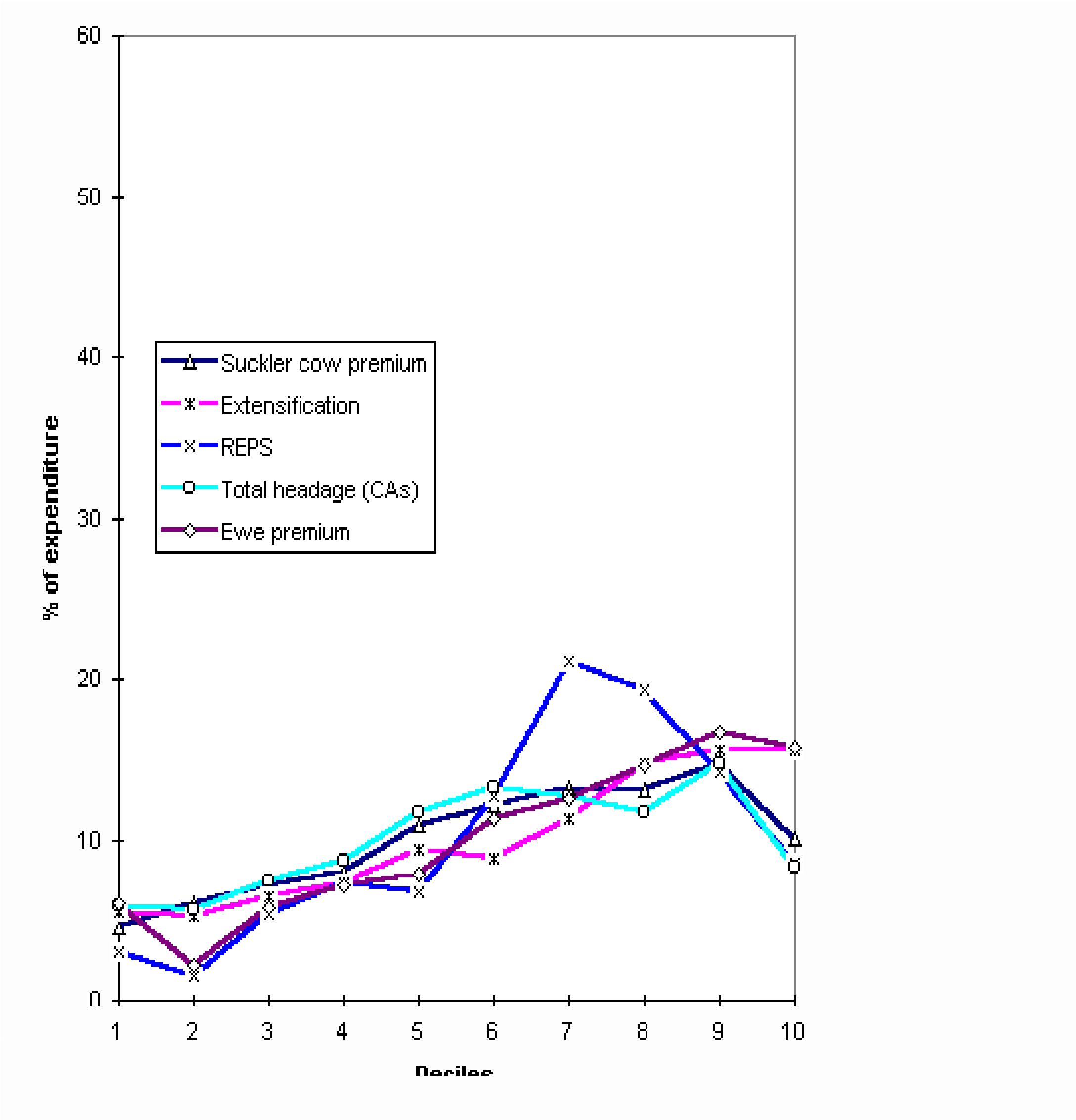
Source: Teagasc NFS, 1998

In 1997 the average level of payment was £6,670 for all farms which represents 62 per cent of the average family farm income in that year. The actual level of payments for farms in different size groups is consistent with the pattern shown in Figure III where the largest farm category on average received £28,207 in 1997. This compares with £1,315 for farms less than 10 ha and £3,305 for farms between 10 and 20 ha. Clearly, the larger scale farms received proportionately more but this is not surprising given the linkage of premia with the level of production, such as number of livestock or acres in cereals.

With respect to farm system all the drystock systems and tillage are heavily dependent on direct payments for income. For instance on cattle rearing farms in 1997 direct payments accounted for 105 per cent of family farm income, which in fact means that sales from these farms were not sufficient on their own to cover the costs of production. With respect to dairying there are indirect benefits accruing in that the special beef premia are partially capitalised in the price of bull calves which are sold on to farmers in other systems.

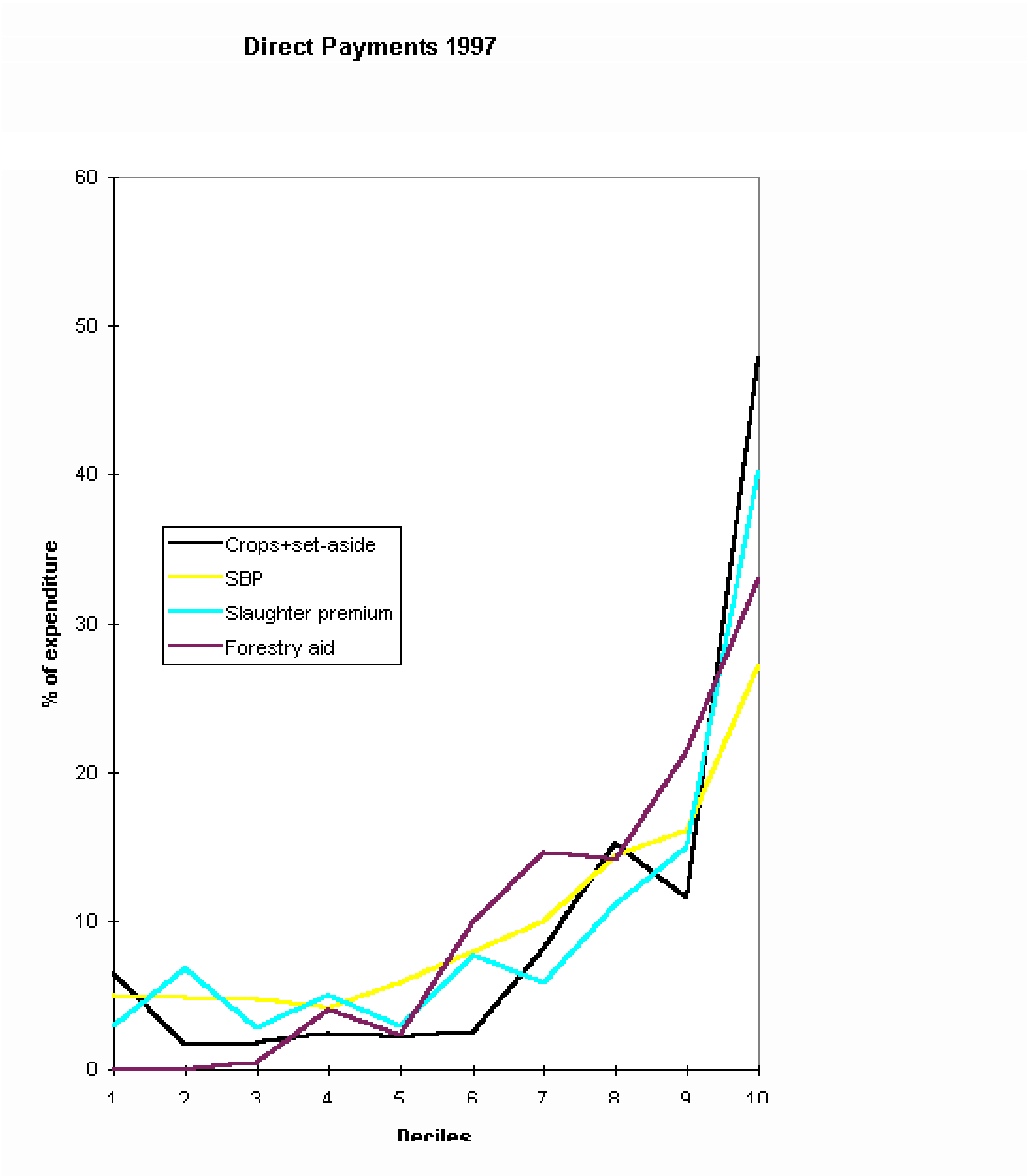
The total expenditure on individual measures in 1997 by family farm income decile is shown in Figures 4 and 5 below.

Fig. 4



60
50
40
30
20
10
0
1
2
3
4
5
6
7
8
9
10
% of expenditure
Suckler cow premium
Extensification
REPS
Total headage (CAs)
Ewe premium

Fig. 5



Using this analysis direct payments can be divided into two major types. Measures such as cereal aid, deseasonalisation, special beef premia and forestry premia in the main favour those on the highest farm incomes (Fig. 5). The other measures including suckler cow, headage, ewe, extensification premia and REPS are more evenly distributed among all farms (Fig. 4). This latter set of measures are those with a greater degree of modulation and capping to designated limits per farm.

The main conclusions with respect to the evolution and distribution of direct payments relate to their very substantial growth since 1992 and the disproportionate benefits of some measures especially to the larger producer. The increasing dependence of all farms, apart from specialist dairying is another major development which is even more critical on larger farms in terms of the long term security of these payments.

Farm Efficiency and Competitiveness

The impact of increased support of farm incomes through direct payments (on farm production, efficiency and ultimately competitiveness) was also examined. Increasingly claims are made that farmers as income maximisers tend to 'farm the premia' as more and more of their income comes from 'the cheque in the post' rather than from the market. This debate still continues and is becoming more complex particularly in a context where cross-compliance with environmental criteria are now embedded in agricultural policy measures.

A econometric analysis of the impact of direct payments on farms specialising in cattle systems in 1996 with respect to farm output, stocking density, farm investment and off-farm employment of the farm operator were examined. Four separate models were developed including a number of control variables such as farm size, system, and demographic factors which could also affect this set of dependent variables. The results of these analyses are summarised in Table 3.

Table 3: Estimated effects of direct payments, as a percent of total farm revenue, on Farm Output, Stocking Density, Farm Investment and Off-farm Employment (1996)

Farm Production Indicators	Significance	Effect
Gross Output	Significant (.001)	negative
Stocking Density	Not significant	-
Farm Investment	Not significant	-
Off-farm Employment	Not significant	-

Source: Matthews *et al* (1998)

The negative effect of increasing proportions of farm incomes in the form of direct payments on farm gross output is highly significant. Estimates show that a further reduction in the market component of incomes of 5 per cent would imply an 8 per cent reduction in gross output. However, it could be premature to derive definitive conclusions, taking into account the inconclusive results for the other variables and the danger of attributing real effects to 'statistical artifacts'. Rather, it is more prudent to conclude from initial results that the 1992 CAP Reform tends to suppress farm output at least for dry cattle farm systems. Similarly, it is premature to derive any conclusions on the impact of direct payment reforms on farm competitiveness generally.

Behavioural Responses: Past and Future

A third dimension of the study was to examine the more subjective and behavioural components as to how farmers now, and in the future respond to reforms involving direct payments. The data sources were (i) a survey of farmers who participated in the NFS (1997) and (ii) data from the NFS files. In particular three questions were raised about (a) farmers' subjective views on direct payments (b) how they have responded to these changes and (c) what are the likely responses to anticipated policy changes.

In general farmers do not perceive direct payments to be fair. Omitting specialist dairy farmers the perceptions on the fairness of headage and premia payments are shown in Table 4.

Table 4: Perceived fairness of Direct Payments to different classes of farmer (1997)

	%
Fair	31
Not Fair of which:	69
Favour large farmer	(42)
Part-time farmers getting too much	(2)
Dairy farmers too much	(9)

Disadvantaged Areas	
boundaries unfair	(6)
Other enterprises unfairly treated	(3)
Should be capped	(2)
Other	(20)
Total	**100**

Less than one third of farmers were satisfied that the direct payments system was fair; the main element of dissatisfaction being that they favoured the larger farmer and to a more limited degree that dairy farmers were receiving more than their fair share.

Contrary to expectations and the negative effects on gross output (shown above) the predominant response (where there was a response) to increased levels of direct payments was an expansionary one. (Table 5)

Table 5: Farm level changes[1] as a result of CAP Reform

	%
Contraction	**5**
No change/Other	**58**
Expansion	**37**
Total	**100**

[1]Changes were measured either in expansion or contraction terms in four dimensions as follows:

(i) farm inputs; (ii)stocking levels; (iii) farm investments and (iv) farm labour. These changes refer to farmers views as concerning the operation of the farm since 1993

When questioned about changes in the operation of their farm since 1993 more than a third indicated that direct payments had an expansionary impetus. There may be many explanations for this but the likelihood is that on many farms these are the necessary adjustments to ensure the maximum "returns" in terms of drawing down direct payments.

Concerning the future of CAP, farmers were asked about the possibility of decoupling payments from production and how they would respond to such an eventuality. Given the proviso that decoupling would not affect the level of payments received, farmers attitudes were assessed (Table 6).

Table 6: Farmers' attitudes toward decoupled payments

Attitude	**%**
Favourable	**59**
Neutral	**8**
Opposed	**26**
Don't know	**7**
Total	**100**

Fifty nine per cent of farmers held a positive attitude toward decoupled payments mainly because of more simplified paperwork, less restrictions on production and a more secure form of support. Just over a quarter were opposed to the idea and more particularly those on farms over 50 ha.

The anticipated farmer responses to decoupling are summarised in Table 7.

Table 7: Anticipated farmer[1] response to decoupled payments

Response[2]	%
Contract farm activities	**31**
Don't know	**35**
Other/no change	**34**
All	**100**

[1]Specialist dairy farms excluded

[2]See footnote to Table 5

Given the hypothetical and undefined approach to decoupling it is not surprising that most farmers indicated they didn't know what their response would be or otherwise were unlikely to make any change. Insofar as changes were anticipated they involved some contraction of farm activities such as less inputs and less livestock. Moreover, it transpired that younger farmers, those in contact with the advisory service and those on larger farms are most likely to contract their farming operation in the event of decoupled payments.

A County Study

A final element of the study was to examine the impact of direct payments in a more localised context, namely a county. County Mayo was selected, mainly because the structure of farming is relatively small scale drystock systems with only a minority in dairying or tillage. In this context a clearer view of how direct payments impact on farm incomes, farm households and ultimately on farm and rural area viability could be ascertained.

The results of a survey of 413 farmers in the county in late 1995 show that the structure of farming is quite diverse. Accordingly farmers in different circumstances are positioned quite differently vis-a-vis direct payments and farm viability. For example, only 16 per cent of farms in the county were dependent solely on the farm for an income, in that the farm operator and/or the spouse had an off-farm job or were in receipt of a pension or unemployment benefits.

Overall four main categories of farm were identified including (i) a full-time commercial sector accounting for 7 per cent of farms; (ii) a part-time sector where either the operator and/or spouse had a full-time off-farm job (29%); (iii) a young operator category, some with off-farm employment but not full-time, on generally small farms (21%); and, (iv) an older operator category; average age 64 with a majority in receipt of a pension (43%). Estimates show that the average level of direct payment per farm in 1995 was almost £3,000 but this varied substantially between the different categories. The full-time commercial sector received the highest level averaging £8,250 per farm and accounting for almost 20 per cent of the total expenditure in Mayo in that year. The estimated receipts for the other categories were part-time farmers (£2,600); younger operators (£3,500) and older operators (£2,100).

A main conclusion is the critical dependency of full-time farmers in drystock systems on direct payments. In terms of their future viability the necessity to grow the farm business is vital but this is becoming increasingly difficult because of rigidities such supply controls, environmental regulations and access to additional land. On the other hand the dependency of part-time farmers on farm income support is not so critical and in viability terms they seem much less threatened. Because of inadequate resources most could not generate an income sufficient to maintain a farm household and in this sense many have no choice. The most vulnerable category is those younger operators with limited farm resources and part-time or intermittent off-farm jobs. Because of their family circumstances many require additional income to satisfy their household needs. For some there may be opportunities to substantially increase their farm income but the best option for most is to secure off-farm employment within commuting distance of their home. The largest category was the older farmers whose needs are generally outside the realm of agricultural policy. From a farm restructuring perspective it is significant that as a category they hold a third of the land in the county.

The overall conclusion is the almost absolute dependency of farm incomes, especially drystock farming on direct payments. While the policy environment is a virtual straightjacket in terms of farm development through increased production, it is very clear that any diminution in the level of direct payments would have serious consequences for farm incomes and would be particularly harsh on full-time farmers.

While these results pertain directly to County Mayo it is contended that the findings are relevant to a wider region including most western counties. Moreover, while the incidence of different categories of farm may differ substantially in other 'better' farming regions there is ample evidence to show that these farm types are represented widely in the country. The implications of this diversity in the farm population for policy implementation and targeting is clear.

The Future

Despite the radical proposals included in Agenda 2000 regarding farm income support measures, in the final Berlin Agreement most of those did not materialise. At least in the medium term the present system of farm supports will remain in the same general format. In the longer term undoubtedly pressures from a number of sources, such as WTO requirements and the legitimisation of large public transfers to the farming sector will emerge. In this context it is vital to have an objective and relevant database as to the effects of income supports vis-a-vis the farming sector overall and at a more disaggregated level as well as the possible implications for rural development and rural communities.

Conclusions

Since the 1992 CAP reform direct payments increased more than five fold and are now the dominant component of the farm incomes, with the exception of those on dairy farms. For drystock and cereals systems these non-market transfers now approach or exceed the family farm income, which means that the returns received from the market do not cover the cost of production. Clearly this situation creates a farm sector vitally dependent on the payments without which many farm units would operate at a loss and ultimately disappear. In this context it must be concluded that direct payments are effective. The extent to which payments maintain a farm population is, however, more complex and is associated with the distribution of payments between farms in different farm and farm family circumstances.

Large-scale and higher income farms receive disproportionately more in direct payments but even for the highest farm income decile the average level is less than the industrial wage. Where farming is the only income source it follows that payments of these magnitudes are required even for most large drystock and tillage farms. In farm circumstances where there are other income sources the dependence on direct payments may not be critical and in this sense a more targeted system of payment could release resources to be reallocated to others under more severe income pressure.

As more farm income is derived from 'the cheque in the post' the expectation is that farmers adjust their production practices to avail of the maximum amount of subsidies. Results show that drystock farmers respond to the logic in terms of reduced farm output. However, this response is not demonstrated with regard to stocking density and investment. On the contrary there is evidence of increased stocking and higher levels of inputs such as feed and fertilizer since 1993. One explanation of this apparent contradiction is that these are the necessary adjustments to ensure a maximum "draw down" of direct payments. However, in a completely decoupled situation, that is where payments are not linked with livestock numbers, the likely future adjustments would reverse this response. The overall conclusion is that farmers from their individual perspectives generally respond to policy measures in an economic rational mode.

Increasingly, it is becoming very clear that for a large segment of the farm population viable farm units can not be maintained through farming measures or farming alone. For most small and medium-sized farms there is no reasonable prospect that the income derived from farming will be sufficient to maintain a farm household. In this context other income sources are necessary such as those arising from alternative farm based enterprises but more often from off-farm employment. This process of adjustment is now well established (44% of farms in 1998 were part-time) with no evidence that there is necessarily incompatibility between efficient use of farm resources and the maximisation of returns to farm-based labour. In terms of rural area viability it seems more secure to establish viable farm households through a combination of farm and other activities than "squeezing" the last marginal returns from the farm enterprise, including family labour.

Associated Publications

Frawley, J (1996): Direct Payments: Impact at Farm Level, paper to the Agricultural Economics Society of Ireland, 25 March, Dublin

Keeney, M., Matthews, A and Frawley, J. (1997): The Distribution of Direct Payments in Irish Agriculture, paper to the Dublin Economic Workshop, 17th to 19th October, Kenmare.

Frawley, J (1997): Impact of Direct Payments on Farm Incomes and Viability, paper to Teagasc Agri-Food Economics Conference: *Prospects and Policies in Farming and Food,* 9th December, IMI, Dublin

Frawely, J. Matthews, A. and Keeney, M. (1998): Production Effects and Policy Implications of Direct Payments to Farmers, paper to the Irish Economic Association Conference, 24-26th April, Limavady

Frawley, J. (1998): *The Impact of Direct Payments at Farm Level - a County Study*, Rural Economy Research Series No. 15, Dublin.

Matthews, A., Keeney, M. and Frawley, J. (1998): Direct payments and the future of beef production in Europe, paper to the 56th European Agricultural Economics Society, 26-27 February, Paris.

Keeney, M. 1999): The Distributional Effects of Direct Payments on Irish Farm Incomes, prize winning Essay – British Agricultural Economics Society and forthcoming in The Journal of Agricultural Economics.

Keeney, M. and Frawley, J. (1999): Factors Affecting the Distribution of Irish Farm Incomes, paper to the Irish Economic Association Conference, 23-25th April, Westport.