Situation and Outlook in Agriculture 2002/03

December 2002

To order a copy of Situation & Outlook 2002/03, click here

The Situation and Outlook for Dairying 2002/03

B.Fingelton

Summary

The two relatively good years financially for dairy farming (2000 and 2001) have been followed in 2002 with a serious decline in net margins from milk production. This translates into an equally serious fall in total dairy farm incomes. There will be sizeable differences in the impact on farm incomes because of regional differences in the severity of the adverse weather conditions in mid-season and the consequential exposure to higher costs of production. Despite the higher costs incurred, the large reduction in milk prices (averaged at 8.5% or 2.7 cent per litre), was the main contributing factor in the lowering of net margins by an estimated 20% on average. In the absence of the EU support system for dairy products, the fall in milk prices would have been much larger as happened in other non-EU major export dependant countries.

There is a low probability of any major improvement in the margins from milk production in 2003. However, there are positive signs that international prices for some dairy products could continue to improve into next year. Whether such price improvements would be of sufficient magnitude, or be realised before the major portion of Irish milk deliveries are made, is very uncertain. Milk production costs are expected to show no appreciable change next year, which means that this years' relatively high levels will be repeated. As product prices and costs are forecast to be largely unchanged, the historically low net margins per unit of production are likely to hold again for 2003. The eventual outcome from the deliberations of the Milk Quota Review Group and the Minister's decisions may provide a better platform for improvements in productivity and cost efficiency in the future.

Review of 2001 and 2002

The actual financial results for dairy farms for 2001, derived from National Farm Survey (NFS) data, turned out even better than had been estimated a year ago. The value of gross output per

cow, and per hectare, had higher than expected increases of 9% and 8% respectively. The main reason for this was that the average milk prices paid per litre were up over 6% (rather than the 4.2% estimated) from 29.6 cent to 31.4 cent. The contribution to gross output from calves was unchanged in 2001, but there was an increase in cow replacement costs, the third component of gross output.

Table 1.1: Gross Output, Costs And Margins For Manufacturing Milk Per Cow and Per Hectare. (Good Soils)

	2001[1]	2002[2]	2003[3]
	€ per Cow		
Gross Output	1580	1479	1484
Direct Costs	460	474	472
Gross Margin	1120	1005	1012
Overhead Costs	442	460	472
Net Margin	678	545	540
	€ per Hectare		
Gross Output	3152	2955	2966
Direst Costs	918	947	943
Gross Margin	2234	2008	2023
Overhead Costs	882	918	942
Net Margin	1352	1090	1081

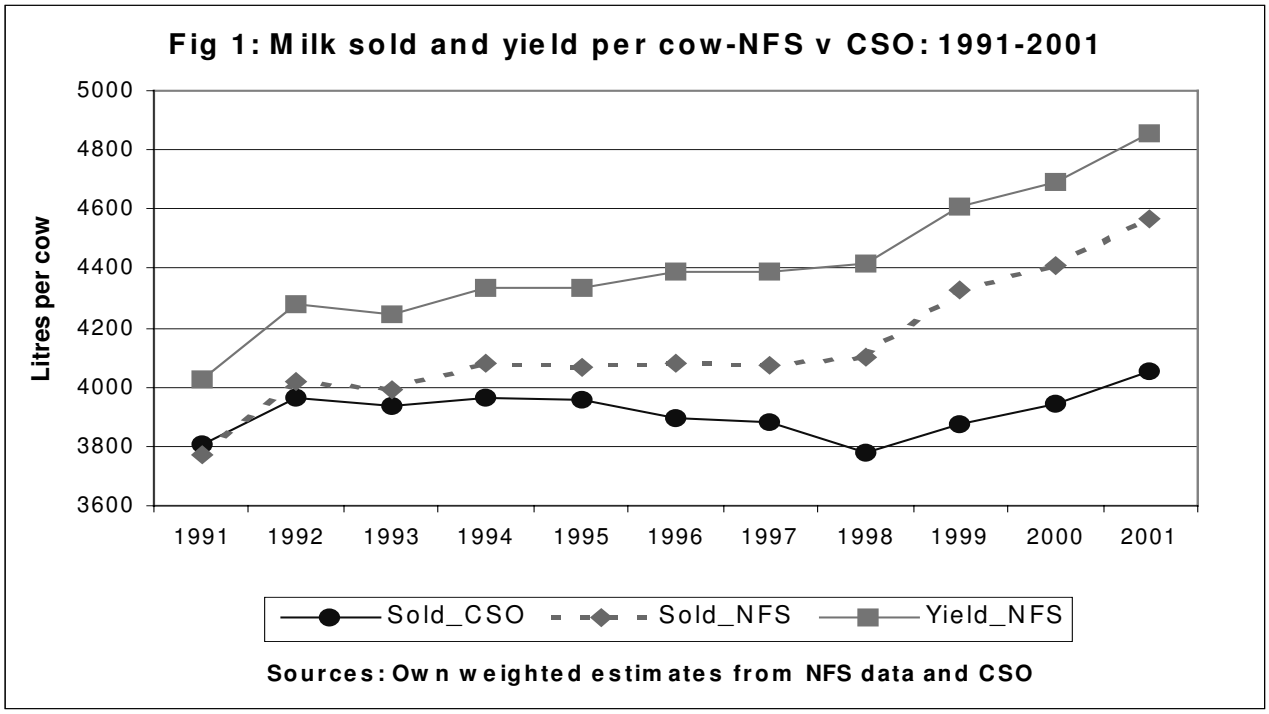
Source: Derived from National Farm Survey data and own estimates

[1]Actual, [2]Estimated, [3]Forecast

Total input costs also increased at a slightly faster rate than direct costs. The more modest increase in costs compared to gross output resulted in average net margins earned in 2001, of €678 per cow, €1352 per hectare and 12.85 cent per litre. The actual results per cow and per hectare for 2001 are shown in Table 1.1 and results per litre are shown in Table 1.2.

Milk yields increase strongly

Another notable feature of the results for 2001 was the further improvement recorded in average milk yields per cow for the fourth consecutive year. This persistent increase in cow productivity follows a period of years in the mid-nineties when negligible changes occurred in national average milk yields. The increase in yield per cow on NFS farms in 2001 was 3.5%. The cumulative average increase in milk yield since 1997, on dairy farms with good soils, has been over 13%. Since the quantity of milk per cow retained on farms, mainly for calf feeding, has varied little for many years, it follows that the quantity of milk sold per cow has increased in tandem with the upward shift in yields. It is therefore puzzling that milk sales per cow derived from published national statistics do not appear to have increased at anything like the rates indicated by results from a representative sample of farms in the NFS.



The extent of the deviation which has occurred in milk sold per cow since the Agricultural Census year of 1991, between the NFS and official aggregate statistics, is shown in Figure 1. This figure also includes the evolution in average annual milk yield per cow based on the results from all milk producing farms in the NFS. The comparison shows that in 1991 (the Census year) there was fairly close agreement between both sources. But, there has been almost continuous divergence since then with latest results available for 2001 showing a difference of 518 litres per cow sold.

There is ample evidence that milk yields on farms were moving up in recent years due to greater use of higher genetic merit bulls. Average yields would also have been boosted due to the

annual exodus from milk production of mainly smaller dairy herds, which have comparatively lower milk yields. Estimates from official sources are based on the total milk intake (deliveries) reported by milk purchasers and the June enumeration estimates for the total dairy cow numbers. The aggregate milk intake figures are likely to be quite accurate because of the application of the milk quota regime reporting and auditing requirements. This leaves the possibility that the estimated national dairy cow numbers in the June (or December) enumerations have progressively become more inaccurate since the 1991 Census year or that the results from the "representative" sample of farms in the NFS have become extremely biased over the years. It is the writers' view that it is more likely that revisions are needed in the enumeration estimates of national dairy cow numbers. This author estimates that a reduction in the region of 100,000 dairy cows may be needed in the June 2001 enumeration estimate to more accurately reflect the number in the national dairy herd at that time.

Margins decline in 2002

The estimated results per cow and per hectare (ha) for 2002 are also shown in Table 1.1. A major decline in the gross margins were sign-posted a year ago, but the size of the reduction was larger than forecasted. The average fall in gross margins per cow and per ha were just over 10%, while average net margins were down by 20%. A fall in milk prices, by an estimated 2.7 cent per litre (cpl) or almost 8.5%, was the main contributing factor to the decline in margins. But the estimated increase in total input costs (+3.5%) added to the decline. Higher calf values (+25%) in 2002 made a positive contribution to gross output equivalent to 0.7 cpl.

The decrease in Irish manufacturing milk prices this year has varied quite a lot between milk processors. Also it would appear from using the Irish Dairy Board on-account prices paid for butter and skim milk powder (SMP) as a guide, that several milk processors may have drawn on cash reserves to prevent milk prices falling to the full extent reflected by market returns throughout 2002. All of the major dairy product categories had a very challenging year in the market place. Butter has been strongly dependent on the current intervention price since falling to that level in August 2001 and staying there ever since. In addition the quantity of Irish butter production sold into public intervention increased markedly in 2002, from 13,660 tonnes in 2001, to an estimated 47,500 tonnes by the end of this year. This equates to an increased dependency from 10% to 36% of total butter production.

The market for SMP in 2002 was similarly depressed and substantial sales of product into intervention occurred for the first time since 1999. In all, about 26% of SMP production was intervened this year. Full intervention price from February until June helped put a floor under Irish milk prices. At that time, the volume of SMP going into EU intervention stores triggered the price tendering procedure for the first time since 1991. As a result, subsequent sales of SMP into intervention were at reduced prices falling from 98.5% to a low of 95.5% from the first to the final tender prior to closure at the end of August. In the weeks following this, there was a strengthening in international market prices for SMP, but this appears to have plateaued for the present. EU export refunds for dairy products having been restored to a relatively high level in July were adjusted downward several times since then. These reductions have eroded the competitiveness of EU products on export markets. Casein prices derived from the main market in the US also remained depressed throughout the year and probably yielded returns similar to or below that available from SMP. Weaker market returns resulted in a decrease in casein production of about 10% and the consequent increase in SMP production.

Cheese was the major success story in the Irish dairy product portfolio in 2001. A record 120,000 tonnes were produced and cheese prices returned at least 5 to 10% above basic intervention price for most of the year. A major downturn in prices was in progress during the final months of 2001. This continued into this year with excess stocks and increased production driving down prices in the UK – the main export market for Irish cheese. Seasonally high milk production, very low milk prices and restricted manufacturing capacity for alternative products, in the first half of 2002 in the UK, led to higher UK cheese production and further price reductions. Cheese prices in the UK have shown an upturn since September. However, Irish cheese prices on average in 2002, probably returned a milk price equivalent below that obtainable from intervention products. Despite the difficult year for Irish cheese manufacturers, the quantity of cheese produced only fell by about 6%. This can be interpreted as a positive sign for the future and underpins the need to diversify away from the dominant dependence on butter/SMP production.

Production Costs Rise

Higher costs were again a feature of milk production in 2002. Direct costs rose by an estimated 3% and overhead costs by nearly 4%. A rise in purchased concentrate feed costs was the main factor in driving up direct costs. The extended period of wet weather from mid May to July made grazed grass utilisation very difficult and the volume of purchased feed input went up by

an estimated 30% since early May. Luckily the exceptional increase in mid season feed demand was largely counter-balanced by a significant decline in the quantity of dairy feed purchased in the early months from January to early May. The net result is that the average volume of concentrates fed per cow in 2002 may be only about 6% higher than that fed in 2001. But because of the differential regional impact of the weather conditions, there will be major deviations in the additional feed purchased on different dairy farms. Concentrate prices rose again in 2002 by over 3%. Forage costs have fallen this year due largely to an estimated reduction in the volume of fertiliser used, but also, due to a reduction in fertiliser prices of 1.5% and 3% for PK compounds and CAN/urea respectively. An increase of 4% has been built into overhead costs, which is slightly below the general increase in price inflation.

In summary, the large drop in milk prices in 2002, partially offset by an increase in calf values, has resulted in a substantial fall in the value of gross output on dairy farms. Further increases in both direct costs and overhead costs have exacerbated the serious decline in the estimates for gross margins (-10%) and net margins(-20%) experienced this year. The trend over recent years, expressed in cent per litre, for gross output, costs and margins for manufacturing milk produced on specialist dairy farms is shown in Table 1.2. The estimate and forecast for net margins per litre for 2002 and 2003 are the lowest, even in nominal terms, since 1991. The fall in real terms, after adjusting for inflation from 1990 to 2002, is of the order of 45%. This would mean that the real net margin this year is equivalent to 5.7 cent per litre at 1990 prices.

Table 1.2: Output Costs and Margins Per Litre Milk Produced on Specialist Dairy Farms - Manufacturing Milk (1999 - 2003)

	1999	2000	2001	2002[E]	2003[F]
	Cent per Litre				
Gross Output	27.85	29.50	30.73	28.78	28.85
Direct Costs	9.08	8.90	9.11	9.39	9.38
Gross Margin	18.77	20.60	21.62	19.39	19.47
Overhead Costs	8.22	8.95	8.77	9.10	9.20
Total Costs	17.30	17.80	17.88	18.49	18.58
Net Margin	10.55	11.70	12.85	10.29	10.27

Source: Derived from National Farm Survey Data and own estimates

E = Estimated F = Forecast

Outlook for Dairy in 2003

The degree of change that might be expected in producer milk prices in 2003 is not totally clear at this stage. Some signs of recovery in international demand for dairy products are evident. However, there is always the question of whether some milk purchasers, who absorbed part of the price fall this year, may take the opportunity to replenish reserves unless there is a very strong recovery in product prices. The information available suggests that the probability of any substantial increase in milk prices in 2003, is quite low, at least up until June or July.

Butter is most likely to return prices closely tied to the intervention price equivalent, which prevailed throughout 2002. Per capita consumption of butter continues to fall in the EU and an overhang of intervention stocks in the EU will not allow for any appreciable price increases. Some recovery in milk powder prices may be more likely, but limited. The overhang of EU milk powder stocks in the EU will prevent any major price increases initially, as they will be released periodically if international prices rise. It should also be noted that current EU export refunds rates will be further reduced if market prices harden. Another dampener on SMP price recovery in 2003 would come into play, if the US authorities proceed with their stated intention to release a large tranche of the current stockpile of 540,000 tonnes of SMP, for food aid. Such an action would inevitably depress commercial prices on export markets.

A more likely factor leading to an improvement in dairy product export prices is the current difficulties affecting Antipodean milk production. In Australia, a prolonged and severe drought is depressing milk deliveries. Recent industry forecasts indicate a 3.3% reduction in 2002/2003. The potential for further growth in milk supplies in New Zealand is also expected to be limited with an expected fall in milk prices of 30% in supplies in 2002/2003 and farmers there had to contend with variable weather conditions in the early production months. Argentina is also experiencing a contraction in milk production, which may leave some opportunities in export markets in South America.

Another major question of relevance is whether the euro will continue to strengthen against the US dollar. This now seems less likely as the near term prospects for economic growth in the main European economies are predicted to be weak. Prospects for growth in the US economy are better but are subject to major uncertainty due to the potential for conflict in Iraq.

A more sustained recovery in EU cheese consumption and in market prices in the UK and a lowering of production in Oceania may prove the best hope of providing scope for a lift in milk prices. But given that cheese production only accounts for about 24% of the utilisation of Irish manufacturing milk supplies, the potential to raise prices in 2003 is still limited. Casein has also become a more important dairy product in recent years. It accounted for over 50% of skim milk use in 2001 and yielded better financial returns then SMP last year. However, this year, it appears the position was reversed with casein returning no better than SMP. As a result, casein production fell by almost 10%. Casein returns may be stronger than those from SMP in 2003. Steady growth in milk powder use in infant formula provides an important added value outlet for Irish dairy ingredients. Expansion plans announced recently by a major international player with a manufacturing plant in Ireland, has given a major boost to this small but growing market led production base.

Taking all the factors discussed into consideration, manufacturing milk prices will be closely linked to the intervention price equivalent for butter and SMP. This is about 30.2 cpl before processing costs are deducted. This assumes a lower average constituent levels for milkfat and protein than currently prevails on farms. Adjusting for this, deducting a guesstimate for processing costs and including the VAT rebate – a conservative average manufacturing gross price for milk next year would be around 28.7 cpl. Any significant price recovery in the UK cheese market and / or in international commodity markets would enhance producer price expectations. Calf values are not expected to be quite as strong next year and cow replacement costs are assumed to remain unchanged. Therefore, gross output values may be only marginally higher.

Production Costs in 2003

Total milk production costs are unlikely to change greatly next year. Dairy concentrate feed is expected to rise by about €5 per tonne (2%) but a reduction in the quantity fed per cow should reduce the overall cost of purchased feed. The reduction in purchased concentrates, possible in a normal year, will be constrained due to the extra supplements that will be required to compensate for the much lower quality silages conserved this year. Fertiliser prices look set to rise early in the new year and could be about 4% above average prices in 2002. Reports indicate that there are no surplus stocks in Europe and with IFI closing all their production plants, there will be a further reduction in availability of supplies. Stocks held by IFI, equivalent to about 50% of annual output, are likely to be released on a phased basis in 2003 in order to maximise

price returns. Fertiliser application rates on dairy farms should stabilise in 2003 after three years of decline. Stability is also expected in the level of other direct costs. Thus with higher forage costs being offset by lower purchased feed costs, total direct costs should remain largely unchanged in 2003. Some overhead costs may fall if investment falls, but other elements of overheads will be affected by the general inflation in prices in the Irish economy. Thus total costs being forecast for 2003 will remain at the relatively high level reached this year on dairy farms.

Since only minor changes in milk and calf prices are reflected in 2003 and total costs stay largely unchanged, the margins earned per cow, per hectare and per litre, (particularly net margins) will remain close to the historically low levels estimated for 2002 (See Tables 1.1 and 1.2).

Given that the current cost / price squeeze in unlikely to be significantly reversed in the foreseeable future, this leaves improvements in farm productivity and in cost efficiency as the main means available to maintain real incomes from dairying. The rate of productivity improvement that can be achieved largely depends on the quantities of milk quota that can be acquired over time. In the last three years, under the revised national quota regulations, there has been a permanent transfer of 550 million litres to active producers. This equates to an average of about 3.5% per year of the national quotas, as compared with an annual transfer of less than 1.5% annually in the 1990's. Maintaining permanent quota transfers at this higher rate annually would provide the basis for a very satisfactory gain in productivity levels for very many committed dairy farmers.

However, providing more equitable opportunities for quota acquisition on a nationwide basis and across all size categories would need to be addressed if productivity gains are to be maximised and cost efficiencies enhanced. This would be a relatively straightforward exercise if only private costs and benefits had to be assessed. Currently, there are positive externalities applying to certain production areas under the present quota regulations and clearly defined discrimination in favour of small and medium sized milk producers is in place. The Minister of Agriculture and Food recently requested the Milk Quota Review Group (MQRG) to make submissions on those issues with a view to amending the current restrictions on quota transfers from the restructuring scheme. The administratively set price for quota sales and purchases is also included in the review. The recommendations from the MQRG, and the final decisions by

the Minister, will be of major relevance to the entire Irish dairy industry on the road to further reform of the C.A.P.

Acknowledgements

Data supplied by the Central Statistics Office and by the Department of Agriculture and Food were used in making the estimates for 2002. Staff of the National Farm Survey provided the basic data used to compute the results for 2001. Invaluable information and very useful comments were contributed by Anne Randles (Irish Dairy Board), Sean O'Sullivan (Dairygold) and colleagues in Teagasc. The technical assistance from Michael Cushion is much appreciated.

The Situation and Outlook for Cattle 2002/03

W. Dunne

Summary

Irish cattle farmers are very adept at adopting new operating practices on their farms which enable them to exploit the income opportunities arising under the highly regulated market and policy regime under which they function. Even with this capacity to adjust they are experiencing increasing difficulty in maintaining their margins. The strong capacity to adjust combined with an inherently robust survival instinct has enabled the very high numbers of cattle producers to remain in business despite the declining margins.

Today's cattle farmer continues to survive by skilfully managing an armoury that is a mix of information on: the value of each individual DP, the cattle register plus dates of birth, gender and premium status of individual animals, the rules and application forms for area aid, suckler cow premium, special beef premium, census dates for extensification, the retention periods required for specific animals. This necessitates an ability to precisely interpret a complex series of regulations, a strong numerate capacity, a sharp pencil and calculator, or better still, access to a computer. With these skills cattle farmers try to maximise the margins based on the best combination of the individual direct payments that have been increasing in value, market or factory returns that have been declining in value, and production costs that have been rising.

The enterprise results from the Teagasc, National Farm Survey (NFS) show that the overall outcome for 2001 was a slight reduction in the gross margin in nominal terms on the comparable figure for 2000. However, this masks substantial changes for individual segments within the overall cattle enterprise, especially the sharp decline that occurred for some finishing systems.

A rather different picture emerges when the direct payments are excluded and the market based margins are calculated. The market based margin for "all cattle systems" in 2001 decreased by €31/ha, equivalent to a 15% reduction on 2000. But, the proportionate reduction for finishing systems was much higher than for the breeding systems.

The proportion of the gross margin that Irish cattle farmers derive from the market continues to decline. In 2001, the average for all cattle systems had declined to less than 40% for the first time. Even for the most intensive system, "rearing on dairy farms", the market gross margin had declined to 50% of the total gross margin.

Part of the explanation for the poor margins for any farmers involved in winter finishing could be the sharp decline in cattle prices in the late autumn of 2000, after the animals were purchased. But, the structural issue of the progressive capitalisation of a portion of the value of DPs into calf and young animal prices is assuming increased importance. This helps to explain the relatively high market based component for the "rearing on dairy farms" system.

Apart from 1999, direct costs excluding the purchase of animals have been relatively stable. Consequently, almost all of the changes in gross margins are the combined impact of:

- the movements that occurred in the prices for cattle for the different cohorts
- the seasonality of these price movements
- the increasing value of the DPs due to the phased implementation of the Agenda 2000 agreement, and

- the annual adjustments in the rates of pay-out for the DPs as decided by he Minister for Agriculture, Food and Rural Development.

A serious consequence of the increasing reliance on DPs to maintain margins is that farmers in pursuit of their economic interests are increasingly and realistically focusing their management efforts towards the compliance criteria for the DPs rather than the requirements of the consumer market for beef. This end result arises because of the fundamental structure of the DP system itself.

Estimates were made of the changes that have occurred in 2002 in cattle prices, value of the DPs received by cattle farmers, calf prices, direct costs and animal numbers. The combined impact of these factors is an estimated decline in the gross margin for the aggregate cattle sector of €34/ha. This is equivalent to a 7% on the actual out-turn for 2001.

The decline is due to the additive impact of a small decline in costs but a larger decline in revenue when the added cost of calves is taken into account. Had the Minister for Agriculture, Food and Rural Development had not increased the pay-out rate for the first moiety of the DPs from the normal 60% to 80% in the autumn of 2002, the decline in the revenue and the consequential decline in the estimated margin would have been considerably larger.

The adjustment in the rate of pay-out for DPs in 2002 will have a negative impact on the revenue from this source in 2003. A forecast for the aggregate margin in 2003 shows a further decline by €22/ha or 5%. This forecast is based on an assessment of the outlook for cattle prices, values of the DP, direct costs and animal numbers. In preparing this forecast it was assumed that Irish cattle prices will show a small increase on those prevailing in 2002 and that the pay-out of the DPs will revert to its usual level of 60% in the autumn of 2003.

Cattle prices would have to increase by over 5% on average in 2003 to achieve the same margin as the estimated outcome for 2002. Alternatively, the margins for 2003 could, as in the past, be increased by adjusting the rate of pay-out of the DPs. This would increase the margin in 2003 to a level above the estimated outcome for 2002 and similar, in nominal values, to that for 2001. This could present serious problems for 2004 as there would be no increase in the unit value of the individual DPs to offset such an inter-year transfer of revenue.

The overall conclusion must be that cattle margins on Irish farms will continue their downward trend. The variation in the inter-year decline has to date been smoothed by the yearly juggling of the administration of the rate of pay-out of the DPs. With the full implementation of the Agenda 2000 agreement, the unit values of the DPs will remain constant. This will make it more difficult to smooth the inter-year variations in cattle margins.

A declining portion of the gross margin is being derived from producing the cattle *per se.* There is also the prospect that more farmers may be obtaining negative market based gross margins, when the value of animal sales is less than the direct costs of production. Such farmers, in normal circumstances, would quit cattle production since the sale value of the animals did not cover their direct costs, never mind make a contribution to overhead costs. But many of these farmers may be keeping their cattle primarily to get access to the animal based DPs. In this situation the cattle themselves are in fact becoming a rather expensive "premium harvester" for the farmers concerned.

As farmers progressively shift towards obtaining most or all of their margins from DPs, they will realistically focus more and more management effort towards the compliance criteria for the DPs. Consequently, there will be an increasing disconnection between the farmer and the beef consumer. To arrest or prevent this trend, a change in the payment policy is required. Perhaps a decoupling of some or all of the animal based DPs could allow the farmers refocus their management effort towards the

exploitation of their grassland and animal husbandry skills and centre the resulting output more in the direction of the requirements of the beef consumer.

Introduction

This review and outlook of trends in cattle farming in Ireland is divided into three broad segments. A substantial portion of the paper is devoted to a detailed analysis and interpretation of the actual margins achieved for the cattle enterprise on the 1,000 plus farms in the Teagasc, National Farm Survey (NFS). The most recent available data from the NFS is for the year 2001. The margins for 2001 are evaluated in a comparison with similar data for the two preceding years. After this appraisal, a review is presented of the policy and market conditions that prevailed in 2002, followed by an estimate of the likely changes in costs and margins. The final section of the paper focuses on the outlook for 2003 with a forecast of the likely revenue, cost and margin for the aggregate cattle enterprise.

An analysis of margins for the cattle enterprise and the interpretation of trends in these margins would have been compounded by both scheduled and unscheduled changes in the EU beef regime in recent years. Most of the scheduled changes arise from the phased implementation over three years of the Agenda 2000 CAP agreement, starting in the year 2000. Many of the unscheduled changes were made in 2001 but these also have consequences for subsequent years. The relevant changes, especially the issues that precipitated the unscheduled policy adjustments post BSE, are reviewed in an annex at the end of this paper.

Review of 2001

As in previous years, the data for the actual margins, expressed in euro per forage hectare (€/ha), for the cattle enterprise secured by farms in the Teagasc, National Farm Survey (NFS) are presented for:

- the total gross margin per hectare which is the gross revenue less direct costs, and
- the market based gross margin which is the gross margin less the enterprise specific direct payments (DPs).

Gross margins

The gross margin results from the NFS for the year 2001 together with the comparable data for the two preceding years are presented in Table 2.1. The overall outcome for 2001 is a slight reduction in nominal value of the gross margin which is in line with expectations. However, this masks substantial changes for individual segments within the overall cattle enterprise. The margins for the breeding systems of "single suckling" and "rearing on dairy farms" experienced a small reduction (less than €20/ha) in both absolute margin and percentage terms (about 3%).

In contrast, the changes in the margins for the fattening stages were more extreme and diverse. The gross margin for the "stores to finish" system declined by €93/ha, equal to 20%. But the comparable margin for the "weanlings to stores/finish" increased by almost an equivalent amount. However, the margin for the "weanlings to stores/finish" system in 2000 declined slightly while the other margins recovered significantly from the exceptionally low figures for 1999. Apart from 1999, direct costs excluding the purchase of animals have been relatively stable. Consequently, almost all of these changes in gross margins are the combined impact of:

- the movements that occurred in the prices for cattle for the different cohorts
- the seasonality of these price movements
- the increasing value of the DPs due to the phased implementation of the Agenda 2000 agreement, and
- the annual adjustments in the rates of pay-out for the DPs.

Table 2.1: Trends in Gross Margins for Cattle (€/ha)

	1999	2000	2001
Single Suckling	286	430	412
Rearing – Dairy Farms	405	585	568
Weanlings to Stores/Finish	436	432	506
Stores to Stores/Finish	348	458	365
All Cattle Systems	348	472	469

Source: Teagasc, National Farm Survey
Note: headage excluded for all years

Market based margins

A rather different picture emerges when the direct payments are excluded and the market based margins are calculated (Table 2.2). The market based margin for "all cattle systems" decreased by €31/ha, equivalent to a 15% reduction. With the exception of 1999, this is the lowest market based margin in recent years.

But, the decline in the market based margin for "all cattle systems" masks a much more fundamental and longer term trend in the market based margins accruing to farmers involved in specific components of the Irish cattle production system. The scale of the decline in the market based margin in 2001 for the two breeding systems ("single suckling" and "rearing on dairy farms") was similar to that for "all cattle". In contrast, the proportionate reduction for the "weanlings to stores/finish" and the "stores to finish" systems were 30% and 80% respectively. Furthermore, these large reductions in the market based margins follow the declines that occurred in the previous year. In contrast, the breeding systems experienced substantial increases in 2000. Part of the explanation for the poor margins for farmers involved in winter finishing could be the sharp decline in cattle prices in the late autumn of 2000, after the animals were purchased. However, as will be demonstrated later, a much more fundamental structural issue is also involved.

Table 2.2: Trends in Market-based Gross Margin for cattle (€/ha)

	1999	2000	2001
Single Suckling	98	170	139
Rearing – Dairy Farms	222	324	281
Weanlings to Stores/Finish	222	127	88
Stores to Stores/Finish	179	165	34
All Cattle Systems	160	202	171

Source: Teagasc, National Farm Survey

Market focus

When this situation is examined from a beef market perspective further concerns arise. The proportion of the gross margin that is derived from the market is influenced by periodic annual adjustments made by the Minister to the pay-out rate for the DPs. Nevertheless, as the data in Table 2.3 demonstrate, the proportion of the gross margin that Irish cattle farmers derive from the market continues to decline.

In 2001, the market based portion for all cattle systems had declined to less than 40% for the first time. Even for the most intensive system, "rearing on dairy farms", the market gross margin had declined to 50% of the total gross margin. For the fattening systems of "weanlings to stores/finish" and the "stores to finish" the proportion of the total gross margin derived from the market had declined in 2001 to the very low levels of 17% and 9% respectively. The consequence of this is that farmers in pursuit of their economic interests will realistically and increasingly focus their management efforts towards the compliance criteria for the DPs rather than the requirements of the consumer market for beef. This end result arises because of the actual structure of the DP system itself.

Table 2.3: Market-based gross margin as a % of total

	1999	2000	2001
Single Suckling	34	40	34
Rearing – Dairy Farms	55	55	50
Weanlings to Stores/Finish	51	29	17
Stores to Stores/Finish	52	36	9
All Cattle Systems	46	43	37

The differential trends in the market based margins between the breeding and finishing systems outlined above are largely a reflection of the long recognised phenomenon of "capitalisation" of a substantial portion of the value of the animal based direct payments into calf and young animal prices, Dunne 1998a,b and Dunne *et al* 1998. This capitalisation process:

- is beneficial for farmers involved in the early stages of the cattle production chain in that it increases the market based revenue on their animal sales, but
- it results in additional costs to farmers involved in cattle finishing systems as they must purchase these animals whose prices are "inflated" by the capitalisation of a portion of the values of the DPs.

The capitalisation process is further facilitated by the effective existence of a limit on the supply of the calves which are required to "pull down" the SBPs. The supply of calves and young animals is largely controlled by the operation of national limits for dairy cows through quotas for milk deliveries to dairies and for suckler cows via the individual farm quota for suckler cow premiums (SCPs). These largely control the supply of young animals that are eligible for DPs the value of which has greatly increased over the last decade. This greatly accentuates the capitalisation process. The consequence of this capitalisation process has become even more acute as the EU beef policy progressively shifted towards increasing the value of the animal based DPs in order to maintain incomes in *lieu* of the move to lower beef support prices.

As noted earlier, the most intensive cattle farming system, "rearing on dairy farms", still obtained 50% of its gross margin from the market in 2001. However, even this proportion is excessively flattering as much of it is due to the capitalised value of the DPs that these animals will eventually realise on other farms, rather than the ultimate carcass value of the animals themselves.

As the data in Table 2.2 shows, the market based margin in the finishing systems in 2001, was substantially less than €100/ha. A **market based gross margin** of only €34/ha for the final finishing stage is in fact a very small return from the finishing of beef animals, especially if it involves winter feeding. Since the average return is so low, some of the farmers involved would undoubtedly have obtained a negative market based gross margin, the value of animal sales being less than the direct costs of production. In normal circumstances, such farmers would quit cattle production since the sale value of the animals did not cover their direct costs, never mind make a contribution to overhead costs. But the problems facing such cattle farmers are not that simple. Further information on this can be obtained elsewhere, Dunne and Shanahan 1999.

As Table 2.1 shows, the comparable **gross margin** is €365/ha which is sufficient to encourage these farmers to stay in production, even if the market based contribution to overheads are relatively small or even negative. In essence, many of these farmers are keeping cattle primarily to get access to the animal based DPs. For such farmers the DPs have not only become the income but are also the actual gross margin and possibly not even that much in some instances. In the latter situation the cattle are in fact becoming a rather expensive "premium harvester" for the farmers concerned as they are not even able to retain the full value of the DPs as a margin. For a more comprehensive discussion of this, related topics and possible solutions see Dunne 1996, Dunne 1997, Dunne 1998b, Dunne *et al* 1999, Dunne 2000a,b,c and Dunne and O'Connell 2000.

Estimates for 2002

Irish cattle farmers entered 2002 with considerable uncertainty about their immediate future. But, compared to the previous year cattle prices were more stable, some markets were open, others were in the process of being re-developed. The EU market support system was at least functioning even if resulting prices were considered unsatisfactory. Doubts were being expressed about the level of price support that would be available following both the scheduled withdrawl of the SPS in December 2001 and the reduction of almost 7% in the EU intervention price for beef planned for July 2002. Farmers were also concerned about the immediate availability and accessibility of markets both within and outside the EU and the resulting shifts in the market and product requirements for Irish exports of beef and live cattle.

Most 3rd country markets remained closed to beef and live cattle from the EU. Otherwise, the world beef market remained relatively strong and the EU budget situation was adequate to finance the necessary export refunds should these markets become available. The details on the product specifications and prices available from the Egyptian market remained unclear. The demand for beef from Russia remained sluggish. Nevertheless, Russia and a number of continental EU countries provided a valuable outlet for Irish beef, especially for most of the over 30 month cattle which were not suitable for the UK market.

The beef market within the EU was still largely re-nationalised making it very difficult for Irish exports to penetrate commercial markets. The serious price discounting arising from the gross oversupply on the German market was diminishing in most EU markets. Fortunately for Irish farmers, the demand for beef for the British market remained strong due to the severe reduction in domestic supply arising from the FMD problems in 2001. But this was confined to cattle under 30 months and the returns to Irish exports would also be influenced by the strength of Sterling against the euro.

Reflecting the seasonality of calf births, the Irish supply of over 30 month animals declined in the early months of 2002. The reduced supply mitigated the level of price discounting for such animals and also provided a valuable time period in which exporters could identify and penetrate markets and producers could adjust their production systems.

As in the last two seasons, most of the weanling trade to the continent in the autumn was heifers. This will likely remain the situation because the export trade in weanling bulls is sensitive to any narrowing of the price difference for beef between Ireland and other EU countries, plus the EU policy shift to lower beef prices and higher direct payments under Agenda 2000.

Market revenue

The number of Irish steers and cows slaughtered at export premises was lower by about 9% in 2002, but the supply of heifers for slaughter increased by a similar percentage. The number of older steers declined as Irish farmers attempted to sell them earlier than previously. This was possibly a response to the price discounts experienced in the previous year but the more stringent stocking density requirements for the extensification and the SBP could also have been an incentive.

Although the exchange rate between sterling and the euro weakened through the year, Irish cattle prices were supported by the strong demand from the UK market. It is estimated that the final overall price will be about 1% higher in 2002 than in 2001. This estimate reflects the combination of a somewhat larger increase for prime cattle but a price reduction for cull cows.

Mid Term Review

The EU Commission published its Mid Term Review (MTR) of the CAP in July. Among the many other issues, this proposed the decoupling of the animal based DPs to an area based payment. It proposed that the historical animal DP claims for individual farmers be converted to area based DP rights for the future.

In anticipation that the EU may include 2002 in its base year calculations, the immediate response by Irish cattle farmers was to try and increase the value of their animal based DP claims for 2002. In response to this

possibility, some Irish farmers switched to producing bulls rather than steers in a speculative attempt to build up the possible value of their future DPs rights. This resulted in an increase in the number of bulls available for slaughter, but compared to steers the total number of animals involved is relatively small. Also, most farmers became more conscious of submitting the animal claims once the animals had reached the minimum age limit, while other farmers tried to purchase additional eligible animals for this purpose. Other factors favouring the early application for SBPs included, the tightening of the stocking density requirements for the SBP and for extensification and a more general aim to avoid retaining animals beyond the 30 month deadline.

Direct payments

The combined impact of all the above factors is rather difficult to assess. It is probable that the total number of applications for SBP will be substantially up on the previous year. There is also the possibility of an "overshoot" on the quota for the 9 month SBP. Should this occur, the resulting "clawback" on the over-quota value of the SBPs will be confined to farmers with more than 50 eligible SBP animals. Many of these are likely to be larger dairy farmers who also have a substantial cattle enterprise. Others are likely to be farmers who specialise in finishing cattle, and as shown earlier, most of these rely very heavily on the SBP for their margins and income. The clawback will not affect margins in 2002 as it will impact on the value of the 2003 pay-outs arising from the 2002 SBP applications.

Although the stocking density requirements for the dual premium extensification system in 2002 became more stringent and the value of the premiums increased, the resulting revenue will not arise until 2003. Throughout the 2002 grazing season, many farmers had to adjust their farming systems to accommodate the lower stocking rate compliance criteria. Also, there was a sharp and unexpected realignment in some of the census dates for the stocking density counts for extensification. As the potential revenue involved for many farmers is substantial, these two factors combined to precipitate adjustments to the timing of animal purchases and sales and thereby significantly disrupted the cattle markets. Undoubtedly, some farmers operating close to the stocking density limits will be unable to make the desired adjustments and will either lose out entirely on extensification or will have to be satisfied with the lower rate of payment.

With the implementation of the third and final phase of the Agenda 2000 agreement, the values for all the individual DPs and the "national envelope" were increased in 2002. With the exception of extensification, the normal pay-out rate for DPs is 60% of its value in the year of application and the remainder in the following spring. Since the values of the individual premiums are increasing, the revenue accruing, even from 60% of the value, should also increase. A similar, though smaller, increase should arise from the 40%, or second moiety, of the previous year.

As noted earlier, this potential increase in revenue from DPs was diluted by the earlier decision of the Minister for Agriculture, Food and Rural Development in 2001 to increase the size of the 1st moiety of the direct payments (DPs) from 60% to 80%. This effectively converted potential revenue and income from 2002 into actual income in 2001, with a consequential reduction in the expected margins for cattle in 2002. This combined with uncertain cattle price developments, very difficult conditions for grazing and fodder due to inclement weather meant the outlook was likely to result in a substantial decline in cattle margins in 2002.

In the early autumn, in response to the evolving situation for margins and incomes, the Minister for Agriculture, Food and Rural Development again sought and obtained EU permission to increase the value of the 1st moiety of the direct payments (DPs) from 60% to 80% for cattle farmers. This decision then transferred potential revenue and income from 2003 into 2002, thereby more than compensating for the loss of revenue from a similar activity in 2001.

Costs

Early in 2002, a degree of confidence was gradually returning to Irish cattle enterprises as the problems associated with BSE and FMD became more distant and the demand for beef for the UK market increased. This return of confidence together with the scheduled increase in the value of the animal based DPs were quickly reflected in a very strong demand for calves in the spring of 2002. Since cattle farmers are highly dependent on the DPs for their margins, the end result was that calf prices were about 25% higher than in the

previous year. As a consequence this substantially added to the costs for the cattle producers purchasing these calves.

Management logistics, pasture and fodder costs and forage quality were severely disrupted in the first half of the year by inclement weather. However, a significant recovery occurred as the year progressed with the result that forage supplies at the end of the season were considered to be at least adequate even if the quality of the early cut silage is lower than normal. It is probable that the annual consumption of concentrates by cattle will decline in 2002 thus resulting in small cost savings. Similar savings may arise in fertiliser costs but these will be largely offset by increases in other costs. The estimated net impact is a small reduction in cattle production costs per hectare, excluding the much more significant cost impact of changes in calf prices.

Estimated margin

When all of the above estimates of changes in cattle prices, value of the DPs, calf prices, direct costs and animal numbers were taken into account, it is estimated that the overall margin in the cattle sector in 2002 will decline. The scale of the decline could be about €34/ha, or 7%, compared to the actual out-turn for 2001. The figures in Table 2.4 show that this is due to the additive impact of a small decline in costs but a larger decline in revenue when the added cost of calves is taken into account.

Table 2.4: Trends in revenue, costs and margins for all cattle systems (€/ha)

	1999	2000	2001	2002[1]	2003[2]
Revenue	705	833	836	800	781
Direct Costs	357	361	367	365	368
Gross Margin	348	472	469	435	413

Source: Teagasc, National Farm Survey and author's estimates
[1]Estimate [2]Forecast
Note: headage excluded for all years

Forecast for 2003

As the immediate market impact of BSE and FMD recedes, the expectations are that more external markets will open for EU beef and live cattle, and that the internal EU market will be progressively denationalised. Irish cattle farmers with their high dependency on exports would benefit greatly from such developments.

Export markets

Meanwhile, the main demand for Irish beef is likely to come from the UK. This market will in 2003 still require substantial volume of imports to fill the void in domestic supplies created by the FMD outbreak in 2001. The scale of the imports beyond 2003 is more uncertain as it depends on the prolongation of the exclusion on the over thirty months animals (OTMS) from the food chain. This exclusion may be relaxed in 2004. Even then, there is an expectation that OTMS animals may be permitted in the food chain by phasing them in on a date of birth basis.

Other factors that could increase the export demand for Irish beef in 2003 include, the impact of the drought on world cattle supplies, stronger than expected international grain and oil prices, and the possible run down of EU intervention stocks.

A severe drought in Australia and Canada has greatly reduced grain and fodder supplies and increased feed costs. This is expected to initially result in a strong supply of beef from these sources as destocking occurs, but in due course competition in export markets will decline substantially. The higher than expected grain and protein prices will increase feed costs and reduce margins for pig, poultry and intensive beef producers. Any resulting reduction in meat supplies from intensive producers should inevitably strengthen beef prices for extensive beef producers.

The grain harvest in Russia and some Eastern European countries has again been above that for recent years. This has resulted in both additional exports and reduced imports each of which will provide extra hard

currency which could well increase the financial feasibility of importing extra beef. A similar effect could arise in Russia from the unexpected increase in the price of crude oil.

Compared to the overall size of the EU beef market, current intervention stocks are modest and declining. Since the internal EU beef market has firmed, there have been a number of both restricted and unrestricted sales of intervention beef in recent months. The EU Commission estimate that intervention stocks could be cleared in 2003. As past experience would indicate, such a development could put upward pressure on Irish cattle prices.

If the elimination of intervention stocks coincided with an increased demand for beef from Russia and a reduction in supply of beef and other meat from exporting countries, Irish cattle prices could firm significantly. However, any substantial increase in EU cattle prices is likely to be curtailed by the EU management of the export refunds for beef.

Revenue

The volume of Irish cattle available for slaughter in 2003 is likely to be higher than in 2002. For Irish cattle farmers, any modest increase in slaughterings when combined with a possible increase in cattle prices should result in an increase in the market based revenue.

In contrast, the overall revenue available from DPs is likely to decline. Since the pay-out rate for the 1st moiety of the 2002 DPs was increased to 80% in the autumn of 2002, only 20% remains for the 2nd moiety payment in the spring of 2003. Also, as noted earlier, any clawback required for an overshoot of the SBP quota will have to be recouped from the 2nd moiety. It is probable that the pay-out rate for the 1st moiety of the 2003 DPs will revert to the normal 60%. And unlike in previous years, there is no further increase in the unit value of the individual DPs to offset this reduction.

Extra revenue could arise from extensification payments as the value of the premium itself was increased in 2002 and the number of animals availing of the SBP in 2002 also increased. However, as discussed earlier, the percentage of these animals collecting the different extensification premiums remains somewhat uncertain.

The stocking density compliance criteria for the DPs is also changed in 2003. The limit for SBPs is reduced to 1.8LU/ha but the same limit, albeit measured differently, exists for the low payment rate for extensification. It is difficult to establish how many farms and cattle will be affected by these limits. And, in any event, individual cattle farmers are likely to attempt to adjust their animal purchases and sales to avoid the worst effects of such constraints.

Assuming that normal weather prevails in 2003, changes in direct costs will probably be rather modest. Reductions in the volume of fertiliser use and purchased feeds could help to offset increases in input prices. As in the past, calf prices are likely to remain strong and could increase further.

Margin forecast

After taking into account the above outlook on cattle prices, values of the DP, direct costs and animal numbers it is forecast that the overall margin in the cattle sector will decline further, by about €22/ha or 5% in 2003. The main components of this margin forecast are shown in Table 2.4. This forecast is based on the assumption that Irish cattle prices show a small increase on those prevailing in 2002 and the pay-out of the DPs reverts to its usual level of 60% in the autumn of 2003.

If the margin forecast for 2003 was to achieve the same level as the estimated outcome for 2002, cattle prices would have to increase by over 5% on average in 2003. The margins for 2003 could, as in the past, be increased by adjusting the rate of pay-out of the DPs. This would increase the margin in 2003 to a level above the estimated margin for 2002 and similar in nominal values to that prevailing in 2001. This, however, could present serious problems for 2004 as there would be no increase in the unit value of the individual DPs to offset such an inter-year transfer of revenue.

Acknowledgements

Information and data was obtained from various sources in compiling this review. The co-operation of An Bord Bia, CSO, Department of Agriculture, Food and Rural Development and the Teagasc National Farm Survey is greatly acknowledged. Thanks are due to Maurice Roche and Ultan Shanahan for programming and technical assistance. Valuable comments and observations were provided by my colleagues: Michael Drennan, Gerry Keane and Richie Fallon at Grange Research Centre, Teagasc cattle specialists Bernard Smyth, Liam Fitzgerald and Tom Egan, and Anne Kinsella and Liam Connolly in the National Farm Survey unit.

References

Dunne, W. (1996) Beef production performance and prospects. 12pp, *In* proceedings of the Teagasc, Agri-food conference, held at the IMI, December 1996.

Dunne, W. (1997) Area aid: options for the future. The Tillage Farmer, volume 5 number 1 pages 21 and 24, July/August 1997.

Dunne, W. (1998a) What drives calf prices? Page 26, Todays Farm, Teagasc January/February 1998**.**

Dunne, W. (1998b) Direct payments: case for change. Pages 36 and 37, Todays Farm, Teagasc July/August 1998.

Dunne, W., O'Connell, J.J. and Shanahan, U. (1998) The impact of direct payments on calf prices. Pages 25 and 26, *In* Summary of papers presented at the Agricultural Research Forum held at the Faculty of Agricul;ture, UCD, March 1998.

Dunne, W., and Shanahan, U. (1999) Margins for the cattle enterprise. Pages 161 and 162, *In* Summary of papers presented at the Agricultural Research Forum held at the Faculty of Agricul;ture, UCD, March 1999.

Dunne, W., O'Riordan, E., and Troy, D. (1999) Foresight for the beef industry 2010. Pages 65-71, *In* proceedings of Teagasc Agri-food Millennium conference held at Doyle Green Isle Hotel, December 1999.

Dunne, W. (2000a) Shaping a future in farming. Pages 6-8, Todays Farm, Teagasc *January/February 2000.

Dunne, W. (2000b) The drivers of change in farming. Pages 40-41, Todays Farm, Teagasc March/April 2000.

Dunne, W. (2000c) The upsizing of Irish farming: will it happen? Pages 44-45, Todays Farm, Teagasc May/June 2000.

Dunne, W. and O'Connell (2000) The main sources and components of farm incomes in the 21st century. Pages 25- 39, *In* proceedings of Teagasc Agri-food Economics conference held at Doyle Green Isle Hotel Dublin, December 2000.

ANNEX

Policy and Market context

Any analysis of margins for the cattle enterprise and the interpretation of trends in these margins would have been compounded by both scheduled and unscheduled changes in the EU beef regime in recent years. Most of the scheduled changes arise from the phased implementation over three years of the Agenda 2000 CAP agreement, starting in the year 2000. Many of the unscheduled changes were made in 2001 after the 2nd BSE crisis, but these also have consequences for subsequent years. It is appropriate therefore to first review these changes, and especially the issues that precipitated the unscheduled policy changes.

Second BSE crisis

Cattle prices recovered sharply early in the year 2000 after a very poor financial year in 1999 due to the combination of a fodder crisis and poor cattle prices in the autumn. The recovery in cattle prices gave rise to a renewed optimism among cattle farmers. However, the renewed optimism was suddenly undermined in the late autumn of 2000 by another BSE crisis, this time in the continental countries of the EU. But, because of its timing, the collapse in prices had only a small impact on the overall value of off-farm sales and cattle margins in 2000.

The abrupt price collapse and lack of markets precipitated a larger than expected end of year carryover of cattle on Irish farms. It also presented a bleak outlook for farmers involved in winter fattening who had already purchased store cattle at high prices relative to the market outlook for early 2001. In response to the market situation in late 2000, the Minister for Agriculture, Food and Rural Development sought and obtained EU permission to increase the value of the 1st moiety of the direct payments (DPs) from 60% to 80% of the total. The normal 60% had already been paid out in October-November. The additional 20% of the appropriate premiums were dispatched to farmers in late December 2000 and consequently were assumed to be included in the cattle margins for 2000.

This structural flexibility in adjusting the level and timing of the pay-out of the DPs, while generally welcomed by farmers during difficult financial periods, can seriously complicate the analysis and interpretation of year to year comparisons in the economics of cattle farming. These complications are particularly acute when the trends in the margins for individual cattle systems and components of a system are being compared. Adjusting the administration of DPs is a rather crude method of income support and does little to offset the direct impact of cattle price fluctuations. This arises because the individual farmers who are most affected by the fluctuations in cattle prices are those that are least dependent on the value or the rate of pay-out of the DPs.

Market support issues

Irish cattle farmers entered 2001 even more anxious about cattle prices than in previous years. There were a number of market and market support uncertainties. The main ones were:

- a large beef oversupply, estimated to be approximately a million tonnes of carcass equivalent beef in the EU, arising from the BSE crisis.
- a consequential re-nationalisation of the EU market seriously undermined market trade flows, beef prices and cattle margins
- scheduled reductions of just under 7% in the EU intervention price for beef in July 2001 and 2002
- there was also much apprehension about how a number of the operational details of the revised EU market support system would operate. These included:
    - the level at which the official price support mechanism would be activated
    - the capacity of the intervention system, or some other beef supply withdrawal mechanism, to cope with the immediate volume of beef oversupply that was likely to result from the collapse in demand
    - the eventual potential outlets available for any of the relatively large volume of product that might be withdrawn from the market
    - the possible availability of monetary compensation to cattle farmers following the sudden collapse in cattle and beef prices towards the end of 2000
    - the form of this compensation once the more traditional method of paying “top-ups” on existing DPs was being excluded due to EU budget cost.

Policy adjustments
After a rather uncertain start, a new range of EU market supports were finally agreed and introduced during 2001. The main ones were:

- the purchase for destruction scheme (PFD) for cattle over 30 months of age which was introduced and operated in Ireland and some other member states in the first half of the year
- the special beef purchase scheme (SPS) for cull cows which was introduced in the second half of the year to replace the PFD scheme
- the volume ceiling on intervention purchases was increased
- the operational procedures and prices at which "safety net" intervention applied were clarified and implemented
- the introduction of a BSE test, and its eventual extension to include all slaughter and "fallen" animals, which helped to steady consumer confidence
- a second stage Special Beef Premium (SBP) payment for "castrate bulls" was introduced on a temporary basis to help stabilise the market for bull beef
- the extension of the "maiden heifers" concept and its compulsory inclusion in the compliance criteria for suckler cow premium payments to help reduce the future supply of calves and beef
- a phased tightening of the stocking density limits on intensive farms for animals eligible for SBPs and Suckler Cow Premium (SCP) was introduced to encourage extensive production methods and reduce future supplies. These limits were reduced from 2.0 Livestock units per hectare (LU/ha) and fixed at 1.9 and 1.8 LU/ha for 2002 and 2003 respectively.

FMD outbreak

The apprehensions of Irish cattle farmers in 2001 were further fuelled by the outbreak of Foot and Mouth disease (FMD) in the UK and its subsequent introduction into Ireland. Fortunately, the outbreak in Ireland was successfully confined to a single farm. But, it seriously disrupted cattle movements and trade within Ireland from late February to the middle of June 2001.

The net result was that many heavily stocked dairy farms had to retain extra calves and young animals and purchase fodder and concentrate feed to maintain them. Equally, there were many cattle farms with adequate supplies of fodder and grass but they could not obtain animals to use them. Most of these extra costs were subsequently offset by a good and extended grazing season with a particularly mild autumn. Also, the potential negative impact of the cattle movement restrictions on the stocking densities for individual farms aiming for extensification were ameliorated by the introduction of an adjustment coefficient in the overall administration of the system.

As a consequence of FMD, a large volume of beef and sheepmeat was removed from the market in the UK. This resulted in strong prices and created extra demand for imports which was readily captured by Ireland. The strong value of Sterling against the IR£ (euro) helped to sustain Irish cattle prices for 2001 and into 2002. The overall impact was to provide a strong and unexpectedly large market for Irish beef in the UK at better than expected prices. However, the direct price benefit arising from the increased access to the UK market was largely confined to younger cattle because of the 30 month age restriction in that market. An Irish cattle price differential arising from this age limit quickly developed and was particularly acute in the autumn of 2001.

Over 800,000 tonnes of carcass beef had been removed from the EU market, most of it was removed entirely from the food chain, by a combination of the PFD, SPS and the FMD and BSE culling schemes.

Impact in Ireland
Cattle prices in Ireland also benefited from decisions by the Irish government which opted to:

- fully implement the purchase for destruction scheme (PFD) for cattle over 30 months of age, and also
- use the opportunity to increase the support price for cattle by using the national financing option.

Irish beef exports to the EU in the first half of the year were severely hindered by re-nationalisation of markets and lack of demand. Exports were squeezed between the low beef prices prevailing in the continental EU markets and relatively high Irish cattle prices supported by the PFD.

Apart from beef sales to Russia, there was an almost complete collapse of the trade in beef and live cattle to 3rd countries. With the exception of the UK, the beef trade within the EU became re-nationalised and product from Ireland was almost excluded from most markets. Due to the collapse in demand in Germany, substantial volumes of bull beef from Germany were being sold in a number of other member states at substantially discounted prices, especially in the first half of the year.

For cattle farmers in 2001, the most optimistic issue was the scheduled increase in the value of the DPs arising from the implementation of the 2nd phase of the Agenda 2000 agreement. This involved an increase in the value of the premiums for suckler cows (SCP), male beef animals (SBP), the slaughter premium for all animals and the extra payments arising from the "national envelope". The first phase of the dual stocking rate extensification payment system arising from the Agenda 2000 agreement was implemented in 2000, but the actual payments to farmers would only arise in 2001. The revenue from extensification in 2001 increased due to a greater number of farms and cattle availing of extensification payments, especially at the high level of payment under the dual system.

Some of this potential increase in revenue from DPs was diluted by the earlier decision of the Minister for Agriculture, Food and Rural Development in December 2000 to increase the size of the 1st moiety of the direct payments (DPs) from 60% to 80%. As noted previously, this effectively converted potential revenue and income from 2001 into actual income in 2000.

In response to the uncertain outlook and to help maintain the margins and incomes for cattle farmers in 2001, the Minister again sought and obtained EU permission to increase the value of the 1st moiety of the direct payments (DPs) from 60% to 80%. Unlike in 2000, the decision was made in late October 2001 and implemented immediately, thereby increasing the actual pay-outs within the calendar year.

Headage

Some Irish cattle farmers have for many years benefited from the disadvantaged area (headage) payments. Beginning in 2001, the administration of "headage" was changed from an animal based system to "land area" payments. The new land area payments, like REPS, relate to the total farm rather than specific animals or enterprises. Although many farmers with a cattle enterprise continue to benefit from both headage payments and REPS, it is not possible to allocate the "headage" or REPS to a specific farm enterprise, like cattle. This complicates the usual inter-year comparisons for the cattle enterprise from 2000 onwards. To circumvent this, headage payments are now also excluded from the cattle margins presented for the earlier years.

The Situation and Outlook for Sheep 2002/03

L. Connolly

Sheepmeat Market

The EU have predicted a 3% rise in total EU sheepmeat production in 2002. This would be an increase of 31,000 tonnes to bring the total for 2002 to 1.1 million tonnes. EU consumption is forecast to increase by over 3% to 1.35 million tonnes. The main contributor to this increase is the UK where production in 2002 is likely to be 13% up on 2001 levels as sheep numbers increase following the Foot and Mouth Disease outbreak. However UK sheepmeat production in 2002 is still forecast to be 20% lower than the pre-FMD level of 2000. Irish production is forecast to decline by 16% in 2002 following high disposals in 2001 and a lower lamb crop in 2002 as breeding flock is still on the decline. France, Italy and Germany also forecast small decreases in sheepmeat production. On the demand side French consumption is forecast to increase by 13% in 2002 and this combined with lower production results in buoyant demand from France. This increased French import requirement will probably be supplied by the UK and New Zealand. UK exports to France in 2002 are likely to be double those of 2001 but still one third lower than their pre-FMD levels. New Zealand is expected to fill its 226,700 tonne EU quota, having supplied 87% of the quota in the first 9 months of 2002. The UK remains the main destination for New Zealand sheepmeat accounting for 41% in the first nine months. New Zealand exports to France also increased in 2002 and this was mainly in the chilled form.

Sheepmeat Prices

In the year to early November 2002 Irish lamb prices had declined by 11% from the extremely high prices of 2001. However if the first quarter of 2002 is excluded as applicable mainly to lambs carried over from 2001, then the price received for lambs born in 2002 declined by 18%. Lamb supplies to November 2002 have declined by 22% on the comparable period for 2001. However 2001 was an exceptional year with very high disposals resulting in a lower carryover to the spring of 2002.

Sheep and Flock Numbers

Table 3.1: Ewe and flock numbers 1993 – 2002 based on ewe premium applications

	Applicants claimed	Ewes claimed ('000)
1993	52,955	5,338
1998	44,583	4,889
1999	43,707	4,762
2000	41,177	4,499
2001	38,632	4,262
2002[1]	36,165	3,896

Source: Department of Agriculture and Food; [1]Estimate

Flock numbers declined by 2,467 in 2002 with ewe numbers also down by 366,000 head compared to 2001 (Table 3.1). This is the eight year in which ewe and flock numbers have fallen since the McSharry Reform of the CAP in 1992. There are now 16,885 fewer sheep farmers and 1.5 million less breeding ewes than in 1993. A number of reasons can be put forward for this huge exodus from the Irish sheep

sector but the predominant reasons are the decline in profitability relative to cattle and cereal enterprises due to changes in CAP and secondly the problems, either perceived or real, with higher labour requirements in sheep production.

The outlook for 2003 is that ewe numbers will continue to decline and could reach 2001 level as sale of cull ewes to November 2002 was only 5% under the levels of 2001 and 290,000 head.

Direct Payments

The annual sheep premium is shown in Table 3.2 from 1999 to 2002. Following on a review of EU sheep policy in 2000 and 2001, the link between EU lamb price and the support premium was removed and a fixed ewe premium introduced instead. The ewe premium was introduced at €21 per ewe with €1.20 extra to be paid from the National Envelope in 2002. In addition the Rural World Premium of €7 per ewe is to be paid in Disadvantaged Areas.

Table 3.2: Ewe and rural world premia, 1999 to 2001 (€/ewe)

	1999	2000	2001	2002
Ewe premium	21.66	17.47	9.09	21
Rural world premium	6.62	6.62	6.64	7

Source: Department of Agriculture and Food

The extra revenue arising from the ewe premium in 2002 was €11.91 per ewe plus an additional €1.20 from the National Envelope giving a total increase of €13.21 per ewe. In disadvantaged areas farmers received an additional €0.36 per ewe to the Rural World Scheme in 2002.

Sheep Margins

Gross margin data for the main sheep systems are shown in Table 3.3 based on Teagasc National Farm Survey data. Actual margins are presented in 2000 and 2001 with an estimate for 2002 and a forecast for 2003. The lowland systems are based on data from sheep flocks on the better soils with a wide use range.

Table 3.3: Gross margin (€) per ewe, 2000-2003

	2000	2001	2002[1]	2003[2]
Early lamb	62	92	88	82
Mid-season lamb	61	89	84	80
Hill-Blackface	38	28	24	24

Source: Teagasc National Farm Survey
[1]Estimate, [2]Forecast

The increase of €12 per ewe in the ewe premium compensated for the reduced return from the market place. However margins for the lowland systems declined in 2002 due to fall in prices of 14% and 18% for early lamb and mid-season lamb respectively. Costs of production also increased as higher levels of concentrate were fed due to high rainfall and reduced productivity from grass in late spring and the early

summer period. The number of farmers involved in early lamb production has been on the decline over the last decade as it is an intensive, high labour system, which necessitates high prices for lamb to compensate producers. The difference in lamb prices for the early market and the mid-season market has tightened over the years and also the higher prices are available for a shorter period. Farmers have reacted by changing to mid-season production. The outlook for 2003 is a further decline in margins, as it is likely that supply of UK lamb on export markets will be higher.

The predominant system of lowland sheep production is mid-season lamb and the trend in profitability of this system is shown in Table 3.4

Table 3.4: Gross margin (€) per ewe, mid-season lamb 1996-2003

1996	1999	2000	2001	2002[1]	2003[2]
74	53	61	89	84	80

Source: Teagasc National Farm Survey
[1]Estimate, [2]Forecast

The 2001 year was one of the best years recorded for sheep producers with a margin of €89 per ewe. It should also be pointed out that headage payments on ewes are not included in this gross margin for the first time since introduced in the 1970s, as headage was paid on an area basis in 2001 and therefore no longer forms part of enterprise output. It is now recorded as an overall farm subsidy and treated the same as REPS payments. This change in allocation of subsidy has a more serious reducing effect on the gross margins of the Blackface Mountain system where headage was paid on all ewes up to a maximum of 200 at the rate of €12.70 per ewe in the 1990s. This is one of the main reasons for the decline in gross margin per ewe for the Blackface Mountain System from €38 in 2000 to €24 in 2002. It should be emphasised that hill sheep farmers still get headage payments paid under the Disadvantaged Area Compensatory Allowance Scheme. This subsidy will no longer form part of gross margin but rather will be included in net farm income.

The French proposal on removal of the spinal-cord from all carcasses over 6 months has been put back on the agenda and if this is enforced in 2003, it will have a negative effect on lamb prices. The forecast for 2003 is that the gross margin for mid-season lambs will drop by €4 per ewe due to increased pressure on lamb prices.

The trend in output, costs and gross margins per ha for the main lowland system is shown in Table 3.5.

Table 3.5: Trend in output, costs and gross margin (€/ha), mid-season lamb, 2000-2003.

	2000	2001	2002[1]	2003[2]
Gross output	923	1164	1130	1088
Direct costs	333	309	324	320
Gross margin	590	855	806	768

Source: National Farm Survey; [1]Estimate; [2]Forecast

The actual gross margin per ha increased from €590 per ha to €855 per ha from 2000 to 2001 an increase of 45 per cent. Overhead costs per ha were also estimated for this system and the resulting net margin was €467 per ha in 2001 compared to €302 in 2000. As already stated headage payments are no longer included in the gross margins arising from sheep but are included as overall farm subsidies.

Following the review of sheep policy in 2000/01 and the introduction of the fixed ewe premium it is unlikely that there will be further changes to policy until the mid-term review has been completed.

Situation And Outlook for Pigs 2002/03

M.A. Martin

Introduction

Pig prices in 2002 have been close to the average cost of production. Following good returns in 2001 margins in pig production declined in 2002 despite some reduction in feed costs. This reduction was due to a substantial decline in pig price.

Supplies

EU

EU sow numbers in Dec. 2001 at 12,504m were up 0.5 per cent on the previous year. Within the EU there have been major changes in individual countries.
(Table 4.1)

Table 4.1: Trends in breeding herd size in various EU countries

Country	No. Sows (000)	Change %	
		2001/2000	2001/1999
Spain	2707	10.9	+11.4
Denmark	1348	0.3	+7.3
Italy	729	3.0	+5.3
Germany	2509	-0.7	-2.8
France	1360	-1.2	-7.3
Netherlands	1161	-8.7	-12.0
Total	**12504**	**+0.5**	**-0.7**

Source: Eurostat

Spain, Denmark and Italy show increased herd size. The Dutch herd has declined significantly as a result of environmental pressures and cessation schemes.

Initial forecasts by the Forecast Committee of the EU Pigmeat Standing Group were for a 2.4 per cent increase in pigmeat output in 2002 but this has since been adjusted down to 1.3 per cent. This represents annual production of 203m head.

UK

The June 2002 enumeration shows a total breeding herd of 554,000 sows/served gilts. The UK breeding herd has declined by 30 per cent since 1998. (Table 4.2)

Table 4.2: Trends in the UK pig breeding herd (000) (1998 – 2002)

Year (June)	No. Sows + Served Gilts
1998	795
1999	689
2000	610
2001	598
2002	554

Further reductions have not been ruled out.

Ireland

Pig slaughterings for 2002 are projected to be 4.33m head – up 1.9 per cent on 4.25m in 2001. (Table 4.3).

Table 4.3: Pig slaughterings[1] in Republic and Northern Ireland (1997 – 2002)

Year	Number (m)	No. Per Week
1997	4.299	82672
1998	4.506	86649
1999	4.614	88722
2000	4.310	82892
2001	4.191	80596
2002 (proj)	4.271	82125

Source: Bord Bia Market Monitor
Republic: [1]Licenced export premises only

The increased slaughterings in 2002 are as expected given the increase in sow numbers from 2000 to 2001 i.e. 5100 sows. (Table 4.4)

Table 4.4: Trends in sow numbers in Republic and Northern Ireland 1997– 2002 (000)

Year	Republic	N. Ireland	Total
1997	174.4	71.0	245.7
1998	170.2	66.9	237.1
1999	171.5	47.1	218.6
2000	159.2	41.8	201.0
2001	163.5	42.6	206.1
2002	160.7	40.2	200.9

Sources: CSO and DARDNI

Pig slaughterings in 2003 are expected to be 2.7 per cent lower than 2002 at 4.21m head.

Based on total pig slaughterings and the size of the breeding herd in June of the previous year for the island the number sold per sow per year is, on average, 21 pigs. There are substantial exports and imports of pigmeat from and to Ireland. (Table 4.5).

Table 4.5: Pigmeat trade balance – 2001

	Tonnes (000)
Slaughterings	233
Exports	128
Imports	45
Consumption	150

On the island of Ireland 80 per cent of the total sow herd (sows + served gilts) are located in the Republic. (Table 4.6)

Table 4.6: Pig breeding herd in Republic and Northern Ireland 2001-2

		2000	2001	2002
No. Sows (000)	Republic	159.2	163.5	160.7
	N. Ireland	41.8	42.6	40.2
	Total	201.0	206.1	200.9
% Sows	Republic	79.2	79.3	80.0
	N. Ireland	20.8	20.7	20.0

Sources: Central Statistic Office,
Dept. of Agriculture N. Ireland.

Total pig slaughterings were 4.25m in 2001 (Table 4.7).

Table 4.7: Pig slaughterings in Republic and Northern Ireland – 2001

	000 head	%
Republic – licenced export	3197	75.2
local authority	60	1.4
Northern Ireland	994	23.4
Total	4251	100

Live exports to Northern Ireland for 2001 are estimated at 117,000 pigs. This assumes the same level of output per sow in both areas.

Pig slaughterings in 2002 are running 1.9 per cent higher than for the corresponding period in 2001.

Table 4.8: Pig slaughterings in Republic and Northern Ireland – 2002 (43 weeks)

	000 head	%
Republic – licenced export	2535	70.7
local authority (est)	52	1.5
Northern Ireland	998	27.8
Total	3584	100

Source: Bord Bia Market Monitor

Live exports to Northern Ireland have increased substantially since 2001. From January to October 2002 these have averaged at least 6000 pigs per week. This accelerated as a result of the sudden closure of the Glanbia slaughtering facility at Rooskey in May due to fire. This plant had been slaughtering just under 10,000 pigs per week. Pig slaughtering data for the Republic do not accurately reflect the actual level of pig output in the Republic because they do not take account of live exports to Northern Ireland.

Pig output in 2001 has been estimated at €350m. (Table 4.9).

Table 4.9: Agricultural Output 2001

	€m	%
Milk	1564	35.5
Cattle	1246	28.3
Pigs	350	7.9
Sheep	284	6.5
Poultry	151	3.4
Cereals	170	3.9
Other	638	14.5
Total	4403	100

Source: CSO

Net live exports to Northern Ireland were at least €12m in 2001. For 2002 this will be about €30m.

Consumption

Pigmeat consumption in Ireland and in the EU continues to increase. (Table 4.10)

Table 4.10: Per capita consumption of meat 1995 – 2000 (kg)

Meat	Ireland		EU	
	1995	**2000**	**1995**	**2000**
Pigmeat	31.9	38.8	40.2	44.2
Beef	14.8	14.8	19.9	19.1
Poultrymeat	25.8	29.4	19.2	20.6
Lamb	11.4	8.4	3.6	3.5

Source: FAO

Pigmeat consumption per capita in Ireland is greater than for any other meat. In the EU per capita consumption is greater than beef and poultry combined i.e. the second and third most important meats.

Prices

EU

The average EU price for the first 10 months of 2002 was 137.3c per kg. The average for 2001 was 167.3c per kg. Prices for 2002 are per cent lower than for the corresponding period of 2001.

Table 4.11: Average EU pigmeat price 2000-2002 and relative prices in selected countries

	2000	**2001**	**2002***
EU Average Price (c per kg)	142.1	167.3	137.3
Price as % EU Average			
Ireland	91.4	87.6	93.9
UK	110.8	95.5	110.3
Denmark	93.5	94.0	93.6
Netherlands	90.1	84.6	88.9
France	98.7	98.7	94.9
Germany	101.8	102.0	101.9
Spain	100.3	105.0	102.0

*January to October

Source: Bord Bia Market Monitor

In 2002 pig prices in Ireland have improved relative to the EU average. The average price in Ireland, Denmark and the Netherlands is well below the EU average price. All are pigmeat- exporting countries.

Ireland

In the first 10 months of 2002 the average price per kg deadweight has been 130.7c (Teagasc). The average for the year is likely to be 130c. This price represents a 12.3% reduction on 2001 price of 148.3c. (Table 4.12).

Table 4.12:Trends in the price of slaughter pigs: 1993 – 2002 (c per kg deadweight)

Year	Average Price (c)
1993	128.1
1994	127.8
1995	142.6
1996	164.0
1997	143.1
1998	113.5
1999	102.2
2000	129.5
2001	148.3
2002 (proj)	130.0

Source: Teagasc National Monitoring of Prices & Margins in Pig Production

The price for 2002 will be above the average for the last 5 years (124.7c per kg) but less than the average for the last 10 years (132.9c per kg).

Pig prices in Ireland have been 93.8 per cent of the EU average reported price for 2002. This compares with 87.6 per cent for 2001 and 91.4 per cent for 2000.

Costs

Feed Costs

Pig feed prices increased steadily from January 2000. The composite pig feed price reached €225.2 per tonne in June but has fallen to €213.9 per tonne for October 2002. This has lead to a reduction in the feed cost to 80 cent per kg deadweight in October 2002 from 84 cent in June 2002.

Table 4.13: Trends in pig feed prices and feed cost per kg deadweight 1997 – 2002

Year	Average Composite Feed Price €/tonne	Feed Cost Per Kg Deadweight (c)
1997	231	87.8
1998	216	80.8
1999	202	76.3
2000	207	79.8
2001	220	83.4
2002 est.	220	83.4

The reduction in pig feed price has been the result of a decrease in the price of the main feed ingredients. (Table 4.14). The effect of these changes in feed ingredient prices can be illustrated by the change in a finisher diet ingredient cost.

Table 4.14: Pig feed ingredient prices (1999 – 2002) € per tonne

Year	Barley	Wheat	Soya	Diet
1999	125	127	195	143.56
2000	121	129	263	159.72
2001	115	129	270	159.57
2002 (Jan-Oct)	116	120	258	153.21
Oct.2002	111	111	249	145.50

Common Costs These are the non-feed costs which are common to almost all units.

The recording and reporting of all non-feed costs on many units is improving steadily but there is still room for improvement. The results from Pigsys for 2001 (Table 4.15) are likely to understate actual costs. The guideline costs shown are considered to be more likely to represent the true common costs.

Table 4.15: Common production costs (c per kg deadweight)

Cost	Guideline	Pigsys 2001
Healthcare	4	4.2
Heat, Power, Light	4	3.0
Transport	2	2.0
Artificial Insemination	1	-
Manure Handling	2	-
Labour + Management	15	13.6
Repairs	4	3.0
Phone/Office	1	0.7
Insurance	1	0.9
Stock Depreciation	2	0.5
Miscellaneous	1	3.9
Total	**37**	**31.8**

Recorded costs are lower than the guidelines due to:

(a) Cost or value of family labour and owner remuneration is frequently understated.
(b) Lower stock depreciation costs apply when gilts are home-reared rather than purchased.
(c) Manure handling and AI costs are included in Miscellaneous Costs for 2001. Manure handling costs are increasing.
(d) The cost of repairs varies depending on the age of the unit.
(e) Miscellaneous costs are frequently estimated and usually underestimated.

Herd Specific Costs These costs do not apply on all units. Where they do apply there is considerable variation between units.

Table 4.16: Estimated herd specific production costs guidelines (c per kg dead weight)

Cost	c per kg
Building Depreciation	8
Interest	3
Environmental Charges	2
Total	13

Building depreciation is now being calculated based on the following breakdown of initial cost.

55% structure over 20 years
45% equipment over 10 years

Production costs are, at present, likely to be 130c per kg deadweight.

Outlook

Prices

Price prospects are influenced by many factors. These can be considered positive or negative.

Among the factors that would help maintain or increase prices are:

(a) Continuing decline in UK pig supplies.

(b) Reduced production in the Netherlands.
(c) Lifting of the restriction on pork imports to Japan from March 31st 2003. (Safeguard clause).
(d) Clearance of backlog of Danish product built up due to the FMD outbreaks in 2001.
(e) Reduced pig supplies in Ireland.
(f) US production is forecast to decline by 1.5 per cent
(g) A continued increase in pigmeat consumption.

The factors likely to negatively impact on prices include,
(a) Reduced slaughtering capacity on the island in the absence of the Rooskey plant.
(b) Continued expansion in the Danish and Spanish herds.
(c) EU self-sufficiency is forecast to be about 107 per cent. The latest projections show a reduction of just 0.2 per cent for the year ending June 2003 compared with the corresponding period to June 2002 (Marche du Porc Breton)
(d) Increased competition from South America (Brazil) on Russian and other markets.

Costs

While feed is declining as a percentage of total production costs it is still the most important cost at 60-65 per cent. Cereal and soya prices have declined. Feed prices will be lower than in 2002.

Sow productivity level have fallen on Irish farms in recent years (Table 4.17).

Table 4.17: Trends in sow productivity in Ireland 1996 – 2001

Year	No. Pigs Produced Per Sow Per Year
1996	22.1
1997	22.2
1998	22.1
1999	22.0
2000	21.6
2001	21.4

Source: Teagasc Pigsys Report 2001

Unlike other countries (Denmark, France and Netherlands) there has been no sustained increase in litter size in Irish herds in recent years. Meanwhile the number of litters per sow per year has declined and mortality levels have increased slightly. This trend may well reflect the reduced availability of skilled and experienced personnel to work in pig production. A lack of investment in the years 1998-2000 when profit margins were low or non-existent also contributed with deficiencies in repairs and maintenance.

This decline in productivity will lead to an increase in production costs and reduce overall profit levels. The absence of newly trained staff entering the industry and a shortage of skilled experienced personnel is also likely to lead to increased labour costs.

Investment in dry sow housing to effect the replacement of tether systems by the end of 2005 will add to costs if herd size is to be maintained.

Costs associated with compliance with environmental legislation are also likely to increase.

Conclusion

Profitability in 2002 has been very moderate. Feed costs are expected to be lower in 2003. Reduced feed costs will be partially offset by higher non-feed costs. Prospects for pig price are less certain. Prices in the first 6 months are unlikely to match those of 2002 (131c per kg).

Situation and Outlook for Tillage 2002/03

P.W. Kelly and F. Thorne

During the crop year 2001/02 factors at both international and domestic levels that had been developing for several years eventually came to a head. Internationally, developments in international trade affected the Irish cereal price. On the domestic front, area aid claims increased, resulting in area aid for forage maize being reduced.

The weather during the Autumn of 2001 provided good conditions for sowing of cereals. But 2002 had high rainfall in April, May, June and July. This provided poor conditions for crop development and led to disease problems on the growing crop, which increased costs and reduced yields.

International trade developments

There has been concern among Irish cereal producers during 2002 about the decline in grain prices since 2001. A focus of this concern has been the increased level of imports of feed grain in particular to the EU, which has in turn affected the Irish market. A brief explanation may clarify the reasons for these increased imports and their legitimacy or otherwise.

The increased imports of cereals, particularly feed wheat into the EU during the 2000/01 and 2001/02 seasons has been due to two reasons, neither of which are particularly connected. The first is the reduction of import duties on imported grain. The second is the increase in grain production in the countries of the Former Soviet Union.

Reduction of import duties on imported grain

The level of import duty on wheat of all types into the EU in October 2002, was zero. The explanation for this is given in Appendix 1. Features to note are that the reasons that the duty was zero were the fact that it is calculated based on US prices and consequently the level of duty depends on the price level in the USA and the strength of the US dollar relative to the Euro. In recent years, US wheat prices have been relatively high due to local supply conditions and the US dollar has been 'strong' relative to the Euro. This decreased the level of duty dramatically.

At the same time as this was happening, the low cost (in dollar and Euro terms) wheat producing countries of the Former Soviet Union, (FSU) increased production to the extent that exporting became feasible. The EU was a relatively close market on which there were no duties and so trade took place. As the duty is calculated based on US markets, the price in the FSU has no bearing on it.

The levels of import duty in selected months of 2000, 2001 and 2002 are shown in Table 5.1.

Table 5.1: Duty on wheat imported into the EU, January, June and October each year 2000 to 2002 (€ per tonne)

	Quality		
	'High'	**'Medium'**	**'Low'**
January 2000	24.23	68.89	81.70
June 2000	20.97	55.50	72.10
October 2000	0	0	28.01
January 2001	0	14.23	40.07
June 2001	0	13.2	49.03
October 2001	0	2.85	14.2
January 2002	0	1.34	0.27
June 2002	0	8.45	23.91
October 2002	0	0	0

Source: Cereals Association of Ireland, Market Intelligence Bulletin for relevant month.

Increase in grain production and exports in the Former Soviet Union

At the same time as the duty on wheat imports was reducing, the countries of the Former Soviet Union, particularly Russia and the Ukraine had, for a variety of reasons, been able to increase production and in particular increase the amount of wheat available for export. This is shown in Table 5.2.

Table 5.2. Wheat production and net exports (exports less imports) from the Russian Federation, the Ukraine and Kazakhstan combined, 1992 to 2002 ('000) tonnes

Year	**Production**	**Net exports**
1992	83963	-9278
1993	76990	1416
1994	55009	1846
1995	52863	272
1996	56150	1608
1997	71554	2794
1998	46637	6059
1999	55785	3445
2000	53747	2242
2001	80900	9685
2002[1]	69800	n.a.

Note[1]: Estimated
Source: FAO

It is expected, but not certain, that the arrangements for protecting the EU grain market from imports will be changed in 2003.

Domestic developments

National base area claim

The base area claims by crop, including set-aside are shown in Table 5.3

Table 5.3: National base area claim, by crop 1998 to 2002 (ha)

	1998	1999	2000	2001	2002[1]
Cereals	290,864	276,700	284,498	284,297	293,814
Oilseeds	6,478	2,437	1,530	1,247	1,067
Proteins	4,445	2,781	1,583	2,987	2,239
Maize	5,058	8,079	12,615	17,591	17,096
Linseed	5,148	8,014	2,567	1,233	391
Total	311,993	298,011	302,793	307,355	314,607
Set-aside	20,044	32,563	29,693	36,626	34,160
Grand total	332,037	330,574	332,486	343,981	348,767

Source: DAF

[1] Provisional

Table 5.3 shows that after increasing since 1998 the area claimed for maize payments declined slightly. However, the area claimed for cereals increased by 9,517 ha. Because of an arrangement made to 'ring fence' the aid claim for maize, (which is only allowed 200ha of the National Base Area (NBA) of 345,500ha plus any shortfall arising from under utilisation of the NBA by other crops), all the area aid payment deduction, including set-aside, is applied to maize. This will reduce the maize payment from €365.40 per ha in 2001 to €157.56 per ha in 2002, a reduction of €207.84 or 56 per cent.

Other data not shown in Table 5.3 shows that the area of maize grown in the country increased even though the area for which arable area aid was claimed declined. As it is a forage crop, maize can be entered as forage area for the beef special premia, suckler premia and ewe premia. It does not count for extensification claims. These claims for forage area are set against the National Base Area as are claims for other cereals used for forage.

Crop area

Estimates of crop area estimated from seed sales, show that the areas of Winter wheat and Winter barley increased, probably as a result of the good planting conditions in Autumn 2001. The areas of Spring wheat and Spring oats correspondingly declined. The area of Winter barley, (a minor crop) was unchanged. The estimated area of Winter wheat in 2002 was estimated as 90,000 ha, (+ 41,000 ha from 2001). The areas of the other cereals were Spring wheat 20,000ha, (-15,000 ha), Winter barley, 20,000ha, (no change), Spring barley, 150,000ha, (-12,000ha), Winter oats, 12,000ha, (+6,000ha) and Spring oats, 6,000ha, (-6,000ha). All the other crops occupied 25,000 ha or less.

Yields and quality

A comparison of estimates of yields for the harvests of 2000, 2001 and 2002 is shown in Table 5.4.

Table 5.4: Estimated cereal yields, 2000, 2001 and 2002. (Tonnes per ha)

	2000	2001	2002
Winter barley	8.3	8.0	6.5
Winter oats	8.4	8.0	8.1
Winter wheat	10.0	9.8	8.4

Spring barley	7.0	6.8	5.2
Spring oats	7.0	6.7	6.2
Spring wheat	8.6	8.1	7.5

Source: Teagasc Harvest Reports.

Yields for 2002 reflected the difficult growing season, particularly the very wet weather in April, May and June 2002. Yields of all cereals except Winter oats declined by between 1.6 (Spring barley) and 0.5 (Spring oats) tonnes per ha.

Overall cereal quality in 2002 was 'satisfactory' but not as good as in 2002. The good conditions at harvest contributed to this. Barley qualities were assessed as "moderate", (Winter) and "good" (Spring). Both Winter and Spring wheat were assessed as "acceptable". Winter oat quality was "acceptable" and Spring oats were "very good" (Teagasc 2002).

Although the yield and quality of grain were generally worse in 2002 than in 2001, straw yields and quality were better. The level of demand for barley straw remained at 2001 levels but the demand for wheat straw declined somewhat. This kept the price of barley straw at about its 2001 level but the price of wheat straw, for mushroom compost, declined.

Cereal production

Production of cereals has been estimated by combining data for yield and area harvested.

Table 5.5: Estimated cereal production in 2001 and 2002, (000 tonnes)

	2001	**2002**	**Change (%)**
Wheat	763	906	+19
Barley	1,260	910	-28
Oats	127	134	+6
Total	2,149	1,950	-9

Table 5.5 shows that overall cereal production declined in 2002 from its 2001 level. This was due to reduced yields due to poor weather conditions during the growing period of the crop. The increase in area of high yielding winter wheat was not sufficient to offset the effects of the poor Spring and Summer weather.

Prices

Cereal prices in 2002 were below those prevailing in 2001. This was due largely to the increased level of imports as already explained and the generally good yields elsewhere in Europe, especially France, which drives the EU cereal market. In Autumn 2002, feed barley at about 20 per cent moisture was fetching about €90 per tonne, compared with €97 per tonne in 2001. The largest price decline was for feed wheat; the price of both Winter and Spring varieties fell by about 17 per cent or about €20 per tonne. The price of oats also declined significantly, by about €18 per tonne or 16 per cent.

Area aid payments

Area Aid and Set-Aside Payments remain unchanged in the 2001-02 cereals marketing year and will continue at their present rate until the 'Agenda 2000' changes finishes in 2006. This is unless the radical changes outlined in the 'Mid-Term Review' of the CAP and the 'Agenda 2000' are implemented. At the time of writing, (November 2002), the outcome of the 'Mid-Term Review' is not decided.

Gross margins

Trends in gross margins for the main tillage crops between 2001 and 2003 are shown in Table 5.6.

Table 5.6: Trends in gross margins for the main tillage crops 2001 to 2003 (€ per ha)

	2001	2002[1]	2003[2]
Winter wheat	951	718	798
Winter barley	746	529	620
Winter oats	667	630	589
Spring wheat	904	652	694
Malting barley	712	562	671
Spring feeding barley	623	456	548
Spring oats	717	713	616
Sugar beet	1137	670	1011
Potatoes	3366	5888	4038

[1]Estimated, [2]Forecast

The estimated gross margins of all major crops, except potatoes, declined in 2002. A combination of reduced yields, reduced prices and increased costs over 2001 brought this about. The gross margins forecast for 2003 for all the cereal crops, except winter and spring oats, show an increase on 2002. The relatively high yields experienced in 2002 for oats are not forecast for 2003.

The assumptions for the 2003 forecasts are that five year rolling average yields are achieved and cereal prices rise slightly, by about five per cent due to reduced market supplies in Europe and the longer term rise in world prices. The effect of any revision of the tariff regime used to protect the EU cereal market remains to be seen. Fertiliser prices are projected to remain unchanged, seed costs are projected to fall roughly in line with cereal prices and all other cost items were projected to rise at the projected rate of retail price inflation of about four per cent.

Sugar beet gross margin in 2002 was less than in 2001 as a result of a yield decrease of about 18 per cent. Yields in 2002 were about 38 tonnes per ha (derived from National Farm Survey Results for 2001)

and sugar content was about 17 per cent. Sugar beet growers should be warned at this stage that major changes in the EU sugar regime are likely in the next two to three years as a result of new international trading arrangements for sugar.

The gross margin for potatoes is included in this analysis but is always subject to great uncertainty when expressed on a calendar year basis, as the potato harvest is spread from Autumn in one year to early Spring in the next. For 2003 the gross margin is forecast to fall from its very high level of 2002.

References

Cereals Association of Ireland. *Market Intelligence Bulletin* for relevant month.
DAF. (2002). Personal communication.
FAO. (2002) www.fao.org
Teagasc. (2002) *Harvest Report No 1 of 05/09/02 and others*. Available at http://www.tnet.teagasc.ie/ and also www.client.teagasc.ie

Appendix I

Method of calculation of EU import duties on cereals

The method of calculating import duties on cereals into the EU was agreed as part of the Uruguay Round of WTO negotiations. At the time the system was formulated, the main source of grain imports into the EU was the USA. The system of calculation of the tariff was based on this fact. The tariff rate is based on the difference between the price of imported grain at the port of entry into the EU, (usually Rotterdam) and the "Minimum Import Price", (MIP). The MIP is measured in Euro and is calculated by multiplying the *prevailing* (ie taking account of monthly increments) Intervention Price by 1.55.

For the purposes of the tariff calculation, the price of imported grain at the point of entry to the EU is based on three categories of grain: 'high', (14% protein); 'medium'; (11.5% protein) and 'low', (a catch-all grade with no lower limit on protein).

The US price that is used in the calculation is not based directly on the price at the US port but on the futures market price on an exchange such as the Chicago Board of Trade. In the case of feed wheat this is for US No 2 Soft Red Winter (SRW) wheat, which is the type of wheat that most closely resembles EU produced feed wheat. The futures price is then adjusted by a 'fob premium' which is the difference between the 'near month' futures price and the prevailing US Gulf price. It represents the balance of farm supplies, (which affects the futures price) and export demand, (which affects the Gulf price).

To arrive at a delivered (cif) EU price the process is:
EU cif price = US futures price (quoted in US dollars) + fob premium (also in US dollars)+ freight charge (quoted in US dollars). So the EU cif price is initially based on prices measured in US dollars. The EU cif price has to be converted into Euro at the prevailing rate of exchange and the duty is estimated by taking the difference between a 'two week average EU cif price', (to remove short term fluctuations) and the MIP. In practice a 'franchise' of plus or minus five Euro is applied to the duty

figure that is found and the duty only changes in steps, (again to minimise short term fluctuations). Two important points arise from this process. The first is that it is based solely on US quotations. The second is that since the price quotations and transport charges are based on dollars and the MIP is based on Euro, the exchange rate of the dollar to the Euro has an important bearing on the level of duty. A 'strong' dollar versus the Euro, will, all other things being equal, lower the duty payable on grain imports.

In 1995 when the system was introduced, a 10 Euro per tonne 'premium', or extra charge was levied on grain imports from Black Sea and Mediterranean ports, to take account of the fact that freight charges to the EU from these countries would be less than from the USA. In November 2001 because of increased freight charges from Black Sea countries largely due to extra insurance premiums, this extra duty was removed. Removal of this premium would have no effect when the cif landed EU price of imports from the USA was more than ten dollars below the MIP and be worth less than 10 Euro if the difference was between one and ten dollars. Since 2000, the difference has often been of the order of 15 Euro or more.

Over the period since 2000, the US dollar has tended to increase in value, ('strengthen') against the Euro. The US export price of grain has also tended to increase, even when measured in dollars. The EU intervention price has also decreased as a result of the application of the Agenda 2000 reforms. These three items alone would decrease the duty paid on imported grain.

Situation and Outlook Farmers Plans for 2003

L. Connolly

Teagasc carry out an annual survey every autumn to ascertain farmers planning intentions for the coming year. The survey is conducted on farmers participating in the National Farm Survey by means of a single visit questionnaire. In 2002 the survey was carried out on a total of 1083 farms. In previous years farmers were asked for their plans for the coming year in relation to breeding stock and arable crop planting. However with quotas on all the main enterprises the changes planned between years were found to be extremely small. In the autumn of 2002 it was decided to ask farmers views on issues relating to proposed policy changes and schemes which could impact on their future livelihood in farming.

Response to Fischler Proposal

The main policy under discussion in 2002 was the Fischler's Proposals on the Mid-Term Review of the CAP. These proposals would effectively decouple direct payments from an animals and crops to an area basis, based on payments received during a historical reference period. Whilst much of the detail concerning rates of payment, eligibility for payment, reference period, impact on product prices are uncertain, nevertheless the principles involved were clear and farmers participating in the National Farm Survey were asked how they would react or respond if these changes were to be introduced in the medium term i.e. by 2005/06. It should be emphasised that these are only proposals and may not be introduced or may change significantly before being agreed.

The farmers were asked how the Fischler proposal would affect their farm income in the medium to long term.

Table 6.1: Expected impact of Fischler proposals on farm income if introduced by farming system

	Dairying	Dairy & Cattle	Cattle Rearing	Cattle Other	Sheep	Tillage	All
				%			
No change	40	21	37	35	48	42	37
Increase	5	8	11	11	10	2	9
Decrease	22	41	15	16	14	24	20
Don't know	34	31	36	38	28	32	34

Thirty seven per cent of all farmers felt that the policy changes if introduced as proposed would have no impact on their incomes, whilst 9 and 20% felt that the changes would increase or decrease their incomes respectively. The sheep system had the highest percentage of farmers who felt that the

proposals would have no impact (48%) whilst dairying and cattle system had the lowest percentage (21). Cattle systems had the highest percentage of farmers who felt their incomes could increase (11%), whilst the dairying and cattle system had the highest percentage who thought their incomes would decrease (41%). One third of all farmers did not know or were uncertain of how the proposed policy changes would impact on them and were evenly distributed across all systems.

Farmers were also asked what long term adjustments they would make to their livestock numbers and cereal acreage if the proposals were introduced as outlined (Table 6.2).

Table 6.2: Proposed adjustment to livestock numbers and cereals area due to Fischler proposals

	All	East	West
		% change	
Dairy cows	+3.7	+5.3	-1.8
Suckler cows	-12.1	-11.5	-12.7
Cattle	-7.9	-7.4	-8.8
Ewes	-14.8	-12.2	-18.2
Cereals	-2.9	0.5	-39.8

Farmers said that they would reduce cattle and cereal enterprises whilst the dairy enterprise was the only sector that would expand.

Milk Quota, Winter Forage and Schemes

Farmers operating a milk quota in 2002 were asked to state their plans in relation to their milk quota over the next 3 years and results are shown in Table 6.3.

Table 6.3: Planning changes to milk quota over next 3 years (%)

No. dairy cows	< 30	30 – 60	> 60	All
		%		
No. change	35	26	36	31
Increase	27	63	61	48
Decrease	2	2	0	2
Cease	12	3	0	6
Don't know	24	7	3	13

Farmers with less than 30 cows are contemplating the most change in their enterprises with 12% getting out, 2% decreasing, 27% increasing and 24% unsure.

Inclement weather caused problems in conservation of hay and silage in summer of 2002. Weather conditions improved subsequently but at the time of drafting this questionnaire it was felt that winter forage supplies would be inadequate for the winter of 2002/03. Farmers were asked if they had sufficient forage for animals to be overwintered. The response showed that 83% of farmers have sufficient forage with 14% having insufficient forage and 3% did not know. Of these with insufficient forage 7% had less than 50% of requirements, 40% had 20 to 50% of requirements and 53% had under

20% of requirements. The question related to quantity of silage only and the quality was not raised with the farmers.

Farmers were also asked if they planned on availing of the Department of Agriculture Early Retirement Scheme. This question was confined to those eligible on an age basis for the scheme, i.e. between 55 and 66 years. The results are shown in Table 6.4.

Table 6.4: Farmers plans re Retirement Scheme (% eligible farmers)

	Dairying	Dairying & Cattle	Cattle Rearing	Cattle Other	Sheep	Tillage	All
				%			
Yes	23	15	11	5	14	4	11
No	77	85	89	95	86	96	89

Only 11% of these eligible stated that they planned on joining the scheme. The main reasons given for availing of the scheme were financial (48%), followed by successor ready to take over (23%) and health grounds (17%).

In relation to the transfer of the family farm, all farmers in the survey were asked if they had a successor for the farm. This question was not applicable to 22% on an age basis (too young), 50% had a successor, 16% did not have a successor and 12% were unsure or did not know. Organic farming is being encouraged by the EU and Department of Agriculture and Food through various support measures. Farmers were asked if they would convert to organic production over the next 5 years and their responses are shown in Table 6.5.

Table 6.5: Convert to organic farming in next 5 years

Very likely	Likely	Unsure	Unlikely	Very Unlikely
		%		
1	1	4	10	84

Only 2% are likely to convert and the majority of those are in drystock systems, who were encouraged by the higher REPS payments and the premium product prices.

Investment Plans

Each year farmers are asked for their investment plans in the coming year. These results are compared to their planned investment at the same time last year i.e. planned investment in 2003 versus planned in 2002. In the autumn of 2002, 25,500 farmers stated that they planned on investing an average of €11,500 per farm in 2003 giving a total additional investment of €295m. This is a slight increase on the 23,800 who planned on making additional investment in 2002 when asked last autumn. However the

average investment planned per farm was higher in 2002, giving a total of €344m. Farmers investment plans for 2003 are therefore 14% down on that planned for 2002 with the highest reduction in buildings.

Table 6.6: Farm investment planned for 2003 (€m) by investment type

	2003		2002		Change	
	€m	%	€m	%	€m	%
Machinery	70	24	69	20	+ 1	+ 1
Buildings	151	51	180	52	- 29	- 16
Land	35	12	43	13	- 8	- 19
Milk quota	26	9	37	11	- 11	- 30
Other	13	4	15	4	- 2	- 13
Total	295	100	344	100	-49	-14

It should be pointed out however that the actual investment carried out in 2002 was much higher than that planned – 38,425 farmers investing a total of €503m, viz. 46% higher than that planned. In the past farmers have always understated planned investment in machinery and 2002 was no exception with an actual investment in machinery of €237m compared to that planned of €69m. The actual investment in farm buildings in 2002 was only €125m compared to that planned of €180m. Actual investment in milk quota in 2002 was €36m compared to planned of €37m. If the above pattern is repeated then the actual overall investment in farming in 2003 could be over €400m.

Table 6.7: Farm investment planned by system of farming 2003 (€m)

	2003		2002	
	€m	%	€m	%
Dairying	144	49	203	59
Cattle	79	27	80	23
Sheep	48	16	27	8
Tillage	24	8	34	10
Total	295	100	344	100

As in previous years dairy farmers accounted for the bulk of total planned investment at 50% with a smaller proportion than in 2002 (59%). Planned investment on cattle farms was down slightly with a large increase planned on sheep farms – accounting for 16% in 2003 compared to 8% in 2002. Planned investment on tillage farms in 2003 also increased on the 2002 figure.