

# **Outlook 2012**

## ***Economic Prospects for Agriculture***

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# Executive Summary

## General Overview

- Estimates show that in general the improvement in Irish agriculture observed in 2010 has been sustained in 2011. Although costs rose across the board, agricultural output increased largely due to higher prices and some increase in the volume of output.
- Irish agriculture continues to benefit from strong international demand for agricultural products. The export dependence of the sector to date has shielded it from the weakness of the wider Irish economy. There is an important exception to the generally positive picture with pig production adversely affected by a price cost squeeze throughout 2011.
- World prices for many agricultural commodities remained at elevated levels in 2011, but key input costs such as feed, fertiliser and energy continued to rise in price also.
- Margins in 2011 increased in most of the principal sub-sectors of Irish agriculture, particularly so in the case of dairy, beef, cereals and sheep. By contrast profitability in the pig sector declined.
- Concerns about costs will remain a key issue in the Outlook for 2012, notably with regard to feed, fertiliser and fuel. With some decline in output prices likely in most sectors in 2012, producers would need input costs to decline appreciably in 2012 in order to maintain margins. While feed costs are forecast to fall in 2012, other key cost components are forecast to remain at elevated price levels.
- Overall, costs reductions in 2012 are unlikely to be substantial and therefore, due to falling output prices, most sectors are forecast to experience a reduction in margins relative to 2011. The pig sector is likely to be an exception in this regard as lower feed prices in 2012 are forecast to provide for improved margins in Irish pig production.

## Dairy

- In 2011 the Irish dairy sector benefitted from an increase in both milk prices and the volume of milk output. However, the increase in the value of milk output was accompanied by an increase in the costs of production. Key input prices increased in 2011 but the volume of usage in the case of feed and fertiliser is estimated to have been relatively unchanged. However, the increase in the value of milk output was

sufficient to offset the rise in input prices and therefore dairy margins improved slightly in 2011 relative to the 2010 level.

- Nationally, milk production in the 2011 calendar year increased by about 3 percent on a fat adjusted basis. Due to good early season grass growth some farms have experienced difficulties in matching production to the milk quota, which has led to measures such as the sale of cows, purchase of calves, earlier drying off and once a day milking. The extent to which individual dairy farmers' incomes increased in 2011 will largely depend on the change in production year on year. This is likely to vary from region to region and from farm to farm.
- For 2012, producers should expect only a limited moderation in costs of production. A decrease in feed prices and an increase in fertiliser prices should largely offset each other and fuel prices in 2012 are likely to be unchanged on the 2011 level.
- Global dairy market prospects for the early months of 2012 are less promising than they have been over the last 18 months. Across the main northern and southern hemisphere dairy exporting regions production has increased in the 2011 (2011/12) season in response to the profitable conditions that prevail. Greater export capacity, recovering dairy commodity stock levels and a slow down in international import demand are likely to cause dairy commodity prices to decrease in 2012 relative to 2011.
- Accordingly, it can be said that there are more negative than positive indicators for the Irish dairy outlook in 2012. The average Irish manufacturing milk price for 2012 is likely to be lower than the 2011 level of 34 cent per litre. A decrease in the annual average milk price of 7 percent is projected for 2012 which would take the Irish milk price back to 31.5 cent per litre. Costs are unlikely to fall to the same extent in 2012, so the average net margin in the Irish dairy sector in 2012 is likely to decline to a similar level as 2010.

## **Cattle**

- 2011 saw substantial increases in the prices of cattle relative to 2010. These increases in cattle prices contributed to an improvement in average cattle margins on Irish beef systems in 2011 despite some increases in direct costs of production.

- In spite of the favourable output price movements in 2011, net margins for the majority of cattle farmers remained negative, i.e. the total costs of production exceeded the value of output.
- A tightening supply of cattle both in Ireland and the EU, some improvement in the macroeconomic performance of continental EU member states, and the re-emergence of the EU as a net-exporter of beef, all contributed to higher cattle prices in 2011.
- Given the ongoing macroeconomic uncertainty in the EU, further cattle price increases of the magnitude seen in 2011 are unlikely in 2012, and as a result Irish cattle prices are forecast decline by 2 percent in 2012 relative to 2011.
- With a decline in cattle prices and rising input prices, forecast, margins on Irish cattle farms are expected to fall slightly relative to 2011 but to remain ahead of 2010 levels.

## **Sheep**

- In 2011 the sheep sector experienced another good year with gross margins earned up on levels in 2010 due to rising lamb prices. Irish lamb prices increased by 10 percent in 2011 relative to 2010.
- Direct costs of production for sheep in 2011 were higher than in 2010 due largely to increased concentrate, fertiliser and energy prices.
- The volume of lamb slaughtered in 2011 was over 3 percent higher than in 2010. A lower level of ewe slaughter in 2011 than in 2010 points to a stabilisation of the Irish ewe flock and as a result, Irish lamb production in 2012 should be on a par or higher than in 2011.
- EU imports of lamb from New Zealand in 2012 are expected to be higher than in 2011. This factor, combined with stable EU indigenous production and the risk of a weakening Eurozone economy, mean that Irish lamb prices are forecast to decline by 5 percent in 2012 relative to 2011.
- Gross margins earned by Irish mid-season lamb enterprises grew strongly in 2010 and 2011. With lower Irish lamb prices and somewhat higher costs, the average gross margin earned on mid-season lamb enterprises in 2012 is forecast to decline by 8 percent in 2012.

## **Pigs**

- In 2011 the Irish pig industry has suffered the worst economic conditions in over twenty years, primarily due to escalating feed costs. In light of these conditions the size of the Irish sow herd has remained very resilient with only a small reduction in size taking place in 2011.
- In 2012 feed prices are forecast to decline from their current high plateau. The composite pig feed cost of €296 per tonne in December 2011 is expected to fall by 10 percent during the current year provided currency exchange rates remain relatively stable and harvested crops return average yields based on a five year average.
- The pig price was higher in 2011 compared to 2010 but not sufficiently high to offset the negative impact of rising feed costs. It is expected that the market conditions in 2012 will continue to return a high pig price primarily due to a reducing number of pig disposals in the main European pig producing countries and strong export conditions outside the EU.
- The lower feed cost and strong pig price are expected to generate a healthy profit margin for pig producers in 2012. This will be required to reduce previous accumulated losses and allow necessary infrastructure investment in sow welfare housing.

## **Cereals**

- Following extremely poor margins in 2008 and 2009, profitability in Irish cereal farming improved significantly in 2010. Lower costs of production, a substantial increase in harvest prices and favourable weather conditions at harvest, gave rise to a very substantial increase in cereal crop margins in 2010 relative to 2009.
- In 2011 the Irish cereals sector benefited from an increase in both cereal prices and yields. However, the increase in the value of cereal output was accompanied by an increase in the costs of production. However, the increase in the value of cereal output on a per hectare basis was significantly more than the rise in input expenditure. Hence, net margins improved in 2011 relative to the 2010 level, by approximately €130 per hectare for the average producer and by approximately €165 per hectare for the more efficient producers.
- Nationally, cereal production in 2011 increased by about 22 percent. This increase in production is based on an estimated increase in area



sown to cereals in addition to above average yields obtained at harvest 2011.

- For 2012, the forecast for cereal producers is for another increase in key input prices, such as fertiliser, land rent and seed costs. However fuel prices in 2012 are likely to be unchanged.
- Futures market prices in December/January for harvest 2012 are less promising than they have been at the same time of the year for the past two seasons. The average futures quoted prices in December 2011 and January 2012 for harvest 2012 would translate into a green price for feed wheat of about €145 per tonne, which is about 12 percent lower than the average price paid at harvest 2011.
- While volatility remains ever present in the international cereals market, at the beginning of 2012 the outlook for Irish cereal farmers is less positive than it was a year ago. The average Irish cereal price and yields per tonne at farm level for 2012 are likely to be lower than the 2011 levels. Total costs are likely to increase, leaving the average net margin for the average cereal producer lower than that achieved in 2011 and 2010. However, the average cereal farmer should retain the majority of the Single Farm Payment in 2012 whereby market based output will be sufficient to cover the majority of production costs.

## **Forestry**

- 2011 saw an increase in private forest thinnings. The volume of timber harvested from thinnings in privately owned forests has increased from 40 percent of the total private timber harvest in 2010 to 64 percent in 2011.
- Trading conditions remain difficult for Irish timber processors who are largely dependent on exports to the UK, leaving them exposed to uncertain prices due to fluctuating exchange rates. However, demand at regular Coillte timber sales remains strong and competitive prices are currently being paid.
- Prices paid for first thinnings continue to be buoyed by the more valuable palletwood segment of the harvest. Long term demand for timber is likely to remain strong.
- The area afforested for the year to end Nov 2011 was 6,116 hectares, compared with 7,465 for the same period in Nov 2010. However, funding has again been approved for 7,000 ha of afforestation for 2012.



# **SITUATION AND OUTLOOK FOR DAIRYING 2011/2012**

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## **1. Introduction**

The recovery in the dairy sector in 2010 has been reinforced by another year of relatively high milk prices in 2011. Global dairy commodity markets remained buoyant in 2011 although there was some decline in prices through the second half of the year. On the cost side, the direct costs of production also increased, due to higher feed, fertiliser and energy expenditure and this increase in the cost of production meant that the increase in milk prices was not fully reflected in higher farm margins. In the first half of 2011 milk production was up strongly on the corresponding period in 2010 in response to high milk prices and good early season grass growth. As 2011 progressed controlling milk production in order to avoid a superlevy liability in 2012, became a serious issue on some farms.

As we enter 2012, international dairy prices have weakened in response to an anticipated increase in the global availability of dairy products for exports and the developing uncertainty about consumption growth in 2012, given the current macro economic crisis. With only a marginal decline in input costs expected in 2012, lower milk prices are likely to result in lower margins from dairy production in 2012 in Ireland.

This paper looks back on dairy farm performance in 2010, reviews the outcome for 2011 and looks ahead to the prospects for 2012. Data from the Irish National Farm Survey (NFS) are used in our review of 2010. The milk price and key input cost estimates for 2011 are used to produce an overall estimate of dairy farm profit for 2011. Finally, in the concluding sections of the paper, the forecast for milk price, production costs and dairy farm margins in 2012 is presented.

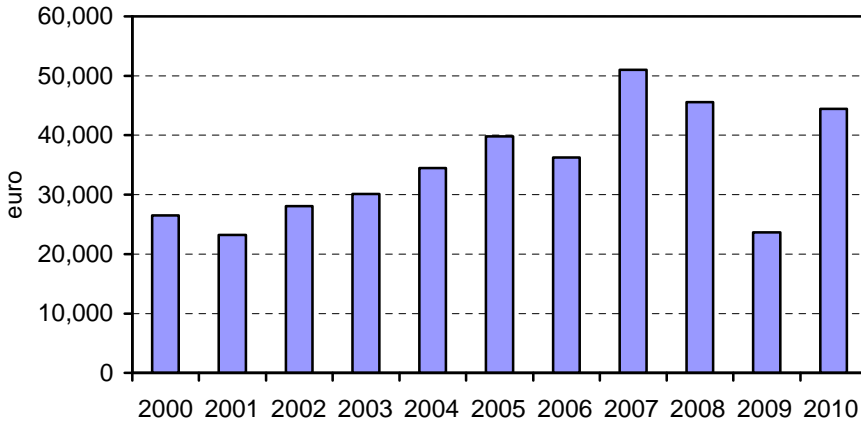
Unless stated otherwise, all figures referred to in this paper are in nominal terms and all income and profit estimates exclude the value of decoupled income support payments.

## **2. Review of the Economic Performance of Dairy Farms in 2010**

To examine the economic performance of dairy farms in 2010, we first look at how dairy farm income has changed over the last few years. Figure 1 presents the Family Farm Income (FFI) on *Specialist Dairy* farms in the period 2000 to 2010. A general upward trend in income can be observed,

as can the increasing volatility of that income in the latter part of the decade. In 2010 the average family farm income increased to €44,000, which represented a substantial recovery from the low level of income recorded in 2009. The increase in income in 2010 came about as a result of an increase in both milk price and in milk delivery volume in 2010 relative to 2009.

**Figure 1: Average Income on Irish Specialist Dairy Farms 2000 to 2010**



Source: National Farm Survey (various years)

To further explore the economic performance of dairy farms in 2010, we next look at how margins have changed over the last few years. Table 1 presents the average gross output, gross margin and net margin per litre of milk produced in 2009 and 2010.<sup>1</sup>

The gross output measure includes the value of milk and calf sales minus replacement costs. The value of milk sales typically accounts for more than 95 percent of the gross output of dairy enterprises. As can be seen, gross output per litre was up by over 31 percent in 2010 relative to 2009. Total direct costs were down by almost 5 percent in 2010 compared to 2009 and as a result the average gross margin was up almost 75 percent on a cent per litre basis relative to 2009. In 2010, total fixed costs increased by 15 percent relative to 2009. The average net margin was 7.5 cent per litre in 2010, representing an almost 700 per cent increase on the extremely low 2009 level.

<sup>1</sup> Farms producing mainly liquid milk are excluded from the sample as are herds of 10 cows or less.

**Table 1: Average Gross and Net Margin of Milk Produced (cent /litre)**

	<b>2009</b>	<b>2010</b>	<b>% Change</b>
<b>Total Gross Output</b>	<b>23.3</b>	<b>30.85</b>	<b>31.67</b>
Concentrate Costs	4.36	4.24	-2.69
Pasture and Forage Costs	4.65	4.18	-10.06
Other Direct Costs	3.67	3.67	0.06
<b>Total Direct Costs</b>	<b>12.68</b>	<b>12.10</b>	<b>-4.60</b>
<b>Gross Margin</b>	<b>10.62</b>	<b>18.75</b>	<b>74.45</b>
Energy and Fuel	2.15	2.43	13.21
Labour	0.43	0.33	-23.26
Interest Payments	0.63	0.60	-4.76
Other Fixed Costs	6.60	7.90	19.66
<b>Total Fixed Costs</b>	<b>9.80</b>	<b>11.26</b>	<b>14.80</b>
<b>Net Margin</b>	<b>0.94</b>	<b>7.49</b>	<b>696.95</b>

Source: National Farm Survey Data (2010) and (2011)

Table 2 presents gross output, gross margin and net margin per hectare of forage area allocated to the dairy enterprise.

**Table 2: Average Gross and Net Margin per hectare\***

		<b>2009</b>	<b>2010</b>	<b>% Change</b>
Stocking Rate	LU/ha	1.84	1.84	
Milk Delivered for Sale	litres/ha	8,441	8,999	6.6
<b>Total Gross Output</b>	<b>€/ha</b>	<b>1,978</b>	<b>2,776</b>	<b>40.4</b>
Concentrate Costs	€/ha	368	382	3.7
Pasture and Forage Costs	€/ha	393	376	-4.1
Other Direct Costs	€/ha	310	330	6.7
<b>Total Direct Costs</b>	<b>€/ha</b>	<b>1,070</b>	<b>1,089</b>	<b>1.7</b>
<b>Gross Margin</b>	<b>€/ha</b>	<b>907</b>	<b>1,688</b>	<b>86.0</b>
Energy and Fuel	€/ha	181	219	20.7
Labour	€/ha	36	30	-18.2
Interest Payments	€/ha	53	54	1.5
Other Fixed Costs	€/ha	557	711	27.6
<b>Total Fixed Costs</b>	<b>€/ha</b>	<b>828</b>	<b>1,013</b>	<b>22.4</b>
<b>Net Margin</b>	<b>€/ha</b>	<b>79</b>	<b>674</b>	<b>749.6</b>

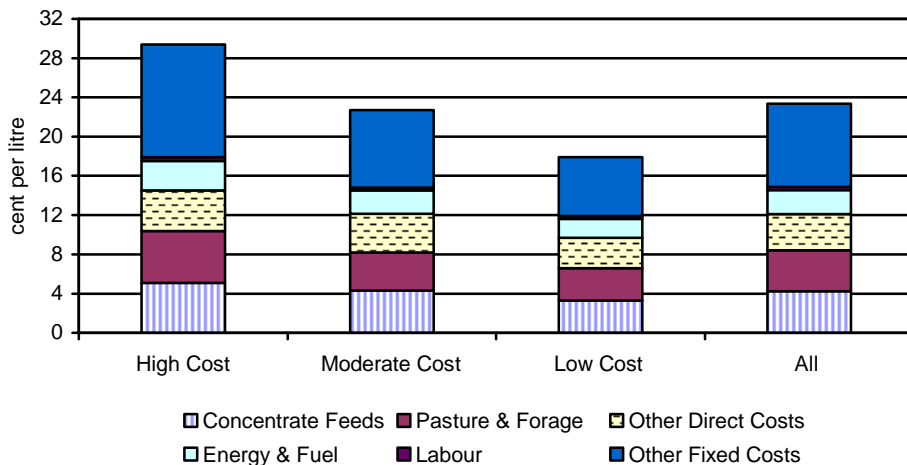
\* - Hectare of forage area allocated to the dairy enterprise

Source: National Farm Survey Data (2010) and (2011)

The trend in margin per hectare is a little different to that presented in Table 1. Notably, there was a 7 percent increase in milk deliveries per hectare in 2010 relative to 2009. As there was no change in the average stocking rate from 2009 to 2010, the production increase was entirely due to a recovery in deliveries per cow. The combination of considerably higher gross output per litre and an increase in milk production per hectare, generated an increase in gross output per hectare of 40 percent in 2010 relative to 2009. The average net margin per hectare in 2010 was €674, a 750 percent increase from the extremely low 2009 level.

In 2010 the national average cost of production was approximately 23.36 cent per litre (cpl). It is possible to divide the dairy farm sample to look at cost groupings so that costs of production can be measured by cost grouping. This is done for the best performing one third of farms (*low cost*), the middle one third (*moderate cost*) and the poorest performing (*high cost*) one third of dairy farms. The variation in costs across farms is apparent from Figure 2.

**Figure 2: Variation in Total Costs of Milk Production in Ireland in 2010**



Source: National Farm Survey Data (2011)

The average total cost of production on high cost farms in 2010 was 29.5 cpl, compared to 22.7 cpl on moderate cost farms and just 18.0 cpl on low cost farms. Across the range of producers the difference in costs, between the average of the best performing one-third of producers and the average of the poorest performing farm group, was over 11 cpl in 2010.

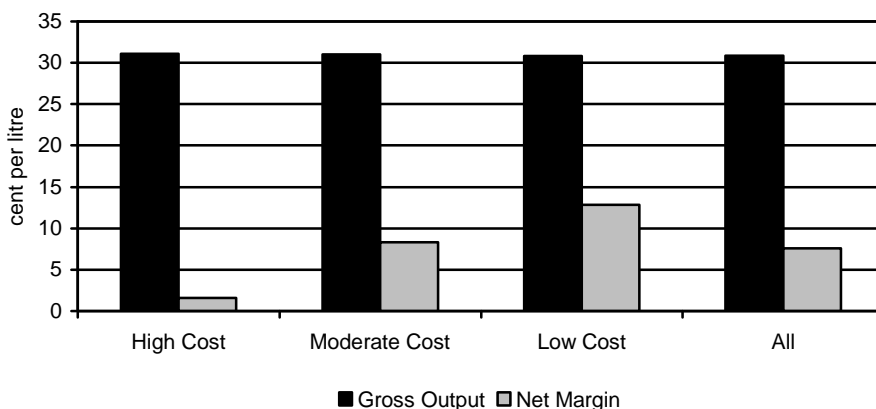
Purchased concentrate feeds and pasture and forage costs represented about 35 to 40 percent of the total costs of production on dairy farms and concentrate feed use is the most variable item across dairy farms.

Purchased concentrate feed costs varied from 3.3 cpl on low cost farms in 2010 to 5.1 cpl on high cost farms. Other direct costs ranged from 3.1 cpl to 4.1 cpl from low to high cost farms.

Fixed costs are broken into three categories; energy and fuel (including car, electricity, phone and all fuel used on the farm), labour (including casual and permanent hired labour) and all other fixed cost (including depreciation and maintenance of machinery, buildings and land). The variation in these costs across farms is broadly in line with the variation in direct costs.

Figure 3 presents gross output and net margin for the three farm cost groupings. As is evident from Figure 3, the variation in gross output is negligible, which indicates that the variation on cost is responsible for the difference in net margin across the groupings.

**Figure 3: Variation in Net Margin of Milk Production in Ireland in 2010**

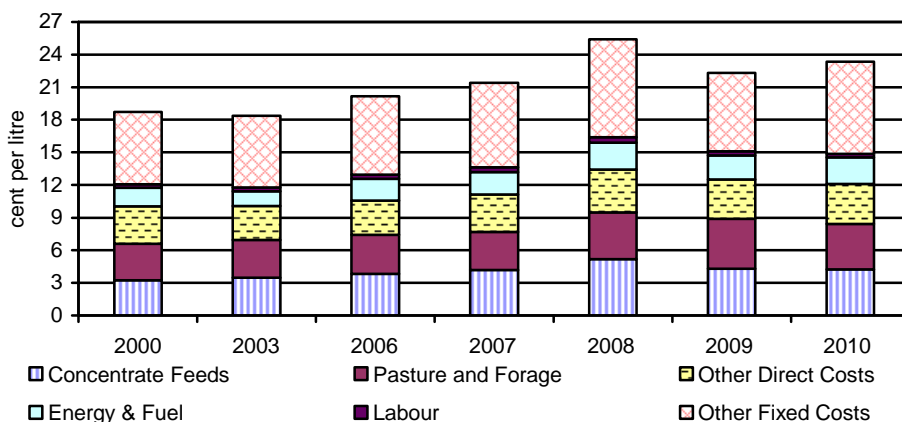


Source: National Farm Survey Data (2011)

The average net margin on low cost farms in 2010 was 12.9 cpl compared to the middle group of farmers at 8.3 cpl and the poorest performing farms at an average of 1.6 cpl. This means that the difference in profit between the low and high cost groups for a typical 250,000 litre farm was over €28,000 in 2010.

Following a decrease in 2009, the total costs of dairy production rose once more in 2010 but did not quite reach the record level of 2008. The increase in total dairy costs in 2010 was a combination of slightly lower direct costs and higher overall fixed costs.

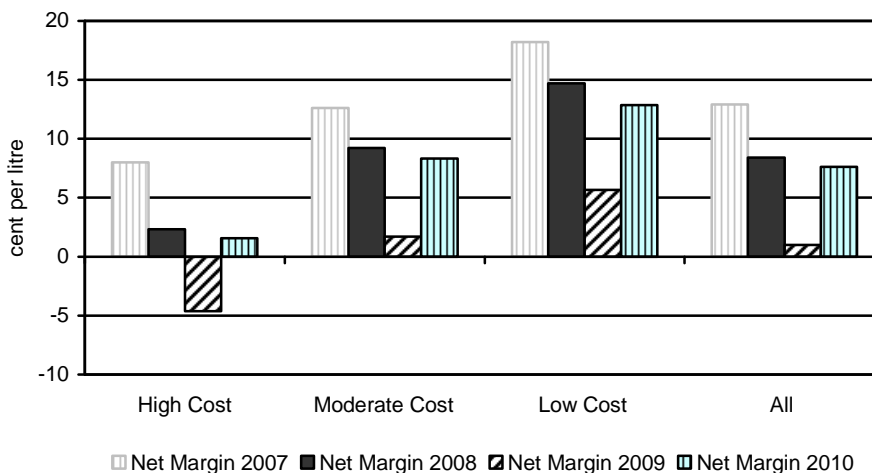
**Figure 4: Variation in Total Costs of Milk Production in Ireland in 2000 to 2010**



Source: National Farm Survey Data Various Years

Figure 5 presents data on recent variations in profitability on dairy farms from 2007 to 2010. As is evident, margins in 2010 were up considerably on the 2009 level across all cost groupings.

**Figure 5: Variation in Net Margin of Milk Production in Ireland from 2007 to 2010**



Source: National Farm Survey Data Various Years

In summary, 2010 marked a notable recovery in dairy farm margins, based for the most part on a strong recovery in farm milk prices and in the volume of milk deliveries per ha in 2010 compared with the preceding year.



### 3. Review of 2011 Estimated Performance

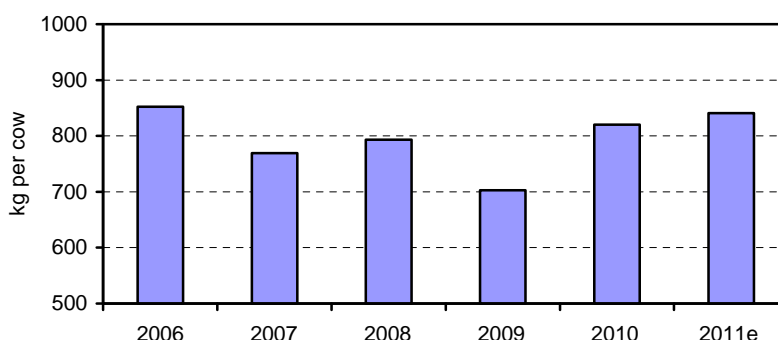
This section of the paper presents a review of dairying in 2011. Since NFS results for 2011 will not be available until mid 2012, it is necessary to estimate the price and volume of inputs used in 2011, as well as the volume and price of outputs in 2011 in order to assess the outcome for margins. The following section of the paper first discusses costs in 2011, looking at both input prices and input usage volumes. Finally in this section, the development of dairy product markets in 2011 and the impact on milk prices is discussed.

#### 3.1 Estimated Input Usage and Price 2011

##### 3.1.1 Feedstuff – usage and price 2011

Purchased feed (concentrates) typically accounts for about 20 percent of total input expenditure on dairy farms, although this varies by farm and by year. Figure 6 shows the average volume of compound feed use per cow. This is derived from Department of Agriculture, Food and the Marine (DAFM) figures on feed sales and from Central Statistics Office (CSO) data on animal numbers. The data indicate that aggregate dairy feed purchases were about 10 percent ahead of the 2010 level in the first half of 2011 due to high levels of milk production.

**Figure 6: Compound Feed Purchases per Dairy Cow in Ireland: National Average for 2006 to 2011**



Source: Authors' estimates derived from DAFM and CSO data

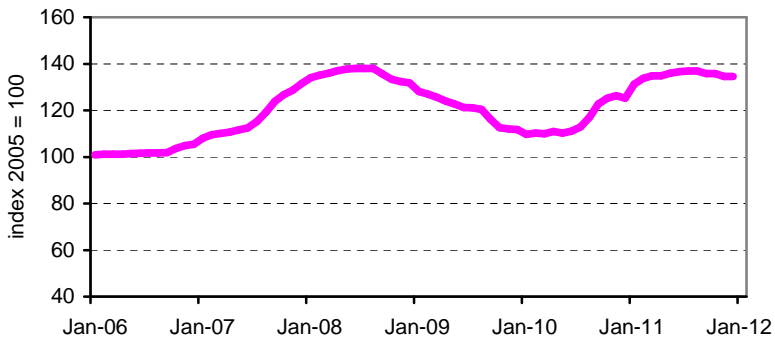
Note: e = estimate

Monthly milk production in the first half of 2011 ran well ahead of normal and by June 2011 it was clear that measures would be required at farm level to avert a superlevy bill. As a result, monthly milk deliveries in the second half of 2011 fell considerably below normal and feed use in the second half of 2011 was curtailed considerably. Based on these data it

would seem that the quantity of purchased compound dairy feed in 2011 is about 3 percent higher than the 2010 level.

Internationally, cereal prices rose rapidly in the second half of 2010 due to the reduced volume of cereals traded internationally and this price rise then began to be transmitted through to the feed market in 2011. Figure 7 shows an index of Irish cattle feed prices from 2006 to 2011. Based on the limited official data available for 2011, the annual average feed price for 2011 is estimated to have risen to about €290 per tonne, corresponding to a 17 percent price increase on the average 2010 level. The 17 percent increase in feed prices in 2011, combined with the 3 percent increase in dairy feed volume, suggest that total expenditure on dairy feed in 2011 increased by 21 percent on the 2010 level.

**Figure 7: Monthly Price Index of Cattle Meal in Ireland 2006 to 2011**



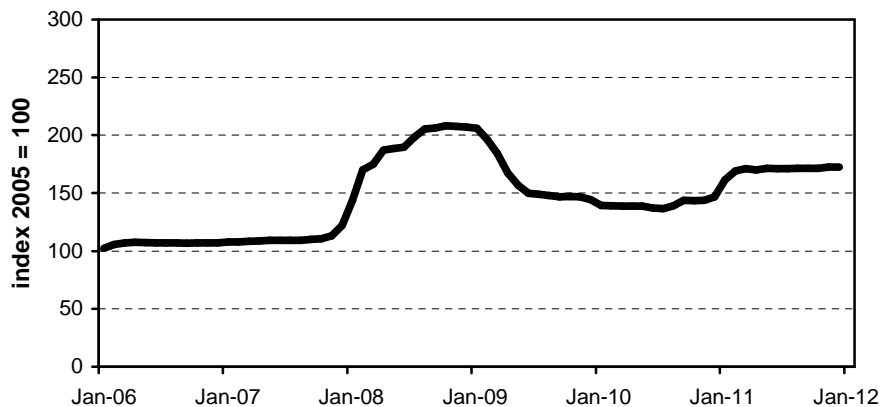
Source: Central Statistics Office (Various Years)

### **3.1.2 Fertiliser – usage and price 2011**

Pasture and forage costs typically comprise about 20 percent of total production costs on dairy farms. Fertiliser purchases comprise about half of this figure, with contractor costs accounting for most of the remainder.

The relatively stable nitrogen prices for much of 2010 were followed in 2011 by the return of fertiliser price inflation. Figure 8 charts the monthly index of farm level fertiliser prices from 2006 through to 2011 in Ireland.

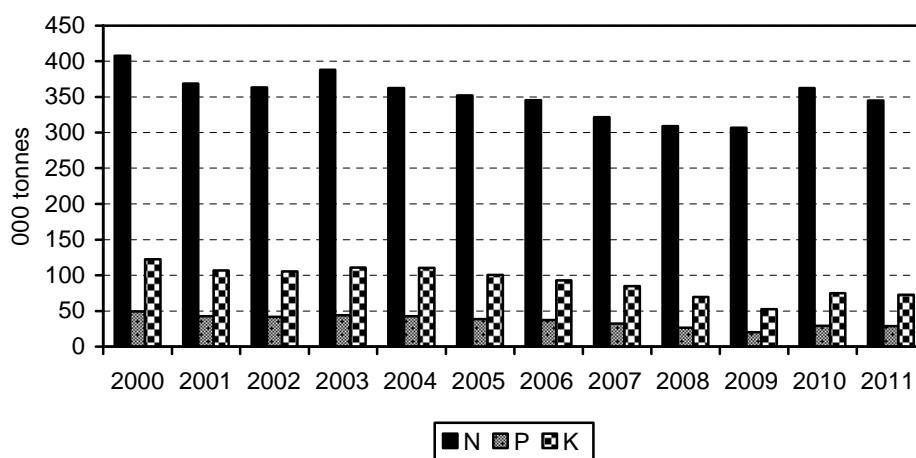
**Figure 8: Monthly Price Index of Fertiliser in Ireland for 2006 to 2011**



Source: Central Statistics Office (Various Years)

Dairy farmers generally will have experienced higher fertiliser prices in 2011 than in 2010. It is estimated that the fertiliser prices paid by dairy farmers in the first half of 2011 were up 25 percent relative to the corresponding period in 2010. On the volume side, DAFM figures indicate that fertiliser sales in the 2011 fertiliser year (October 2010/September 2011) have decreased slightly on the preceding year for all three elements, with the largest decreases recorded for N (down 5 percent) while P and K sales fell by 2 percent and 3 percent respectively. These fertiliser sales data are reported in Figure 9.

**Figure 9: Irish Fertiliser Sales by Compounders 2000 to 2011**



Source: DAFM (various years)

It is estimated that fertiliser use on dairy farms decreased by about 5 percent in volume terms in 2011 relative to 2010. A more precise figure will be obtained from the forthcoming NFS results for 2011. In the case of nitrogen the figures for 2011 would suggest that the elevated sales level of 2010 was not an aberration and that the low level of nitrogen usage in 2008 and 2009 may have been induced by the high fertiliser prices in that period. Overall, taking account of the increase in fertiliser price and decrease in volume, this suggests that there has been an increase of about 19 percent in fertiliser expenditure on dairy farms in 2011 compared with the 2010 level.

### **3.1.3 Contractor Costs usage and price 2011**

Fertiliser costs comprise about 50 percent of total pasture and forage costs, with the remaining half made up of contractor costs. While no official figures are available, there is reason to believe that there may have been some upward movement in contracting costs in 2011, reflecting the increase in fuel prices in 2011. On this basis, it is estimated that silage making costs increased by 5 percent in 2011.

### **3.1.4 Pasture and Forage – usage and price 2011**

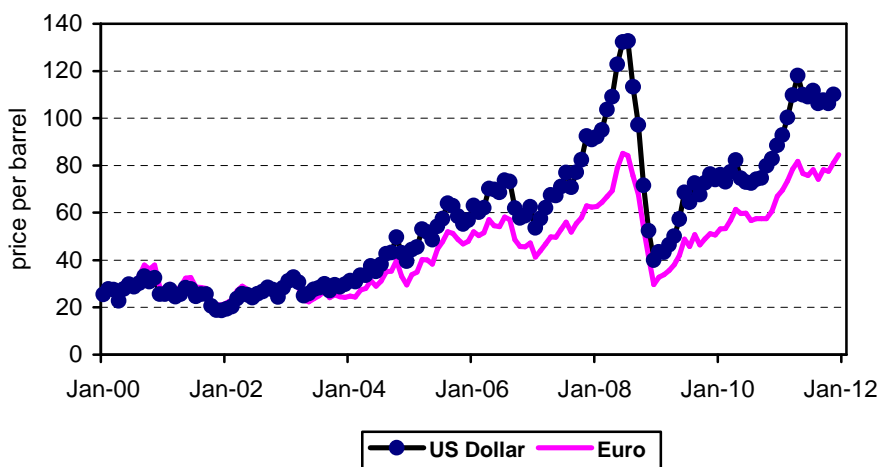
With fertiliser expenditure up 19 percent relative to 2010, and contracting costs increasing by 5 percent, the overall estimated increase in pasture and forage costs for 2011 is just over 12 percent.

### **3.1.5 Energy and Fuel – usage and price 2011**

Energy and fuel are less important inputs in dairy production, comprising just 8 percent of total costs on dairy farms. Electricity typically comprises about 30 percent of the total expenditure on energy and fuel on dairy farms, with motor fuel accounting for the remaining 70 percent.

**Motor Fuel:** Crude oil prices are presented in Figure 10. Political uncertainty in some oil exporting countries pushed crude oil prices upwards in 2011. Brent crude oil prices rose from a monthly average of \$92 per barrel (pb) in Jan 2011 to reach a monthly average of close to \$110 pb in December 2011. The average price for Brent crude in 2011 was \$108 pb.

**Figure 10: Monthly Average Brent Crude oil prices in Euro and US dollar from 2000 to 2011**



Source: St Louis Fed

While the euro weakened versus the US dollar in the second half of 2011, on an annual average basis it actually appreciated versus the US dollar by about 4 percent relative to its 2010 value. The strengthening of the euro versus the US dollar in 2011 means that the extent of the percentage and absolute crude oil price increase relative to 2010 was smaller when expressed in euro terms than in dollar terms. The average crude oil price for 2011 was just over €77 pb (\$108), an increase in euro terms of 32 percent on the 2010 value of about €58 pb (\$77). This means that in nominal euro terms, crude oil prices are now at their highest ever annual level. Overall, fuel costs in Ireland increased significantly in 2011, with diesel prices approximately 18 percent higher in 2011 relative to the 2010 level.

**Electricity:** Electricity costs change infrequently in Ireland due to price regulation. The most recent price change was an increase in October 2011. On an annual average basis this means that prices have risen by about 5 percent in 2011, relative to 2010.

**Energy and Fuel:** Demand by farmers for fuel and electricity tends to be relatively inelastic with respect to price. Therefore, it is assumed that usage in 2011 will be on a par with the 2010 level. The overall expenditure on electricity in 2011 is anticipated to have increased by 5 percent on the 2010 level, while expenditure on fuel in 2011 is likely to have increased by 17 percent on the 2010 level. Overall, expenditure on energy and fuel on dairy farms is estimated to have risen by 14 percent in 2011 relative to 2010.

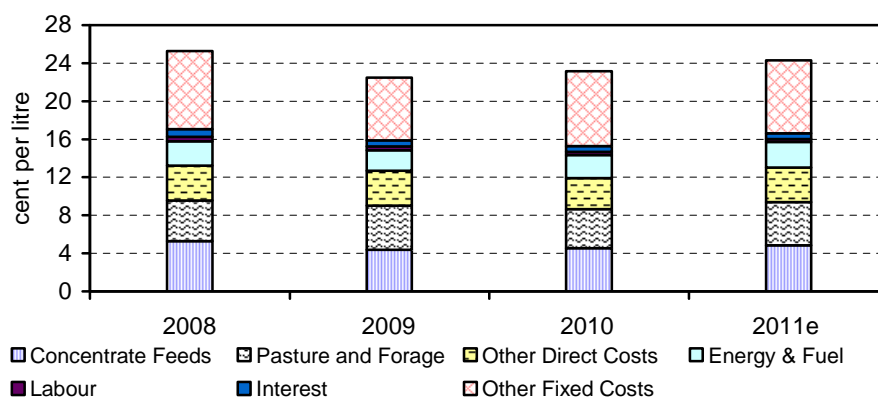
### 3.1.6 All Other Direct and Fixed Costs– usage and price 2011

Agricultural wages in Ireland are estimated to have increased very slightly in 2011. Again, it is assumed that the quantity of labour used on farms is likely to have changed little year on year. With the volume of labour assumed to be unchanged, labour costs are estimated to be up 1 percent in 2011 on the 2010 level. Reflecting the limited price inflation in the general economy, it is estimated that the price of other input items were up 1 percent in 2011. It is assumed that usage of these input items will be unchanged and, as a result, the increase in prices is reflected in a corresponding increase in expenditure on these items. All other fixed costs in 2011 are estimated to have been largely unchanged.

### 3.1.7 Estimate of Total Input expenditure for 2011

An important consideration in the cost story in 2011 is that the volume of milk production rose by 3 percent nationally on a fat adjusted basis relative to 2010, and some of the increase in costs in 2011 is attributable to increased input usage needed to produce this additional output. The preceding discussion of costs reflected changes estimated on a per hectare basis. When the increase in milk output is taken into consideration and costs are expressed on a per litre basis, the cost story for 2011 is a little more benign. Figure 11 charts the average total costs of production for the years 2008 to 2010 and the estimates for 2011. It is estimated that the total costs of production in Ireland in 2011 was 24.31 cent per litre. This is equivalent to a 4 percent increase in 2011 relative to 2010.

**Figure 11: Total Costs of Milk Production in Ireland in 2008, 2009 and 2010 and estimates for 2011**



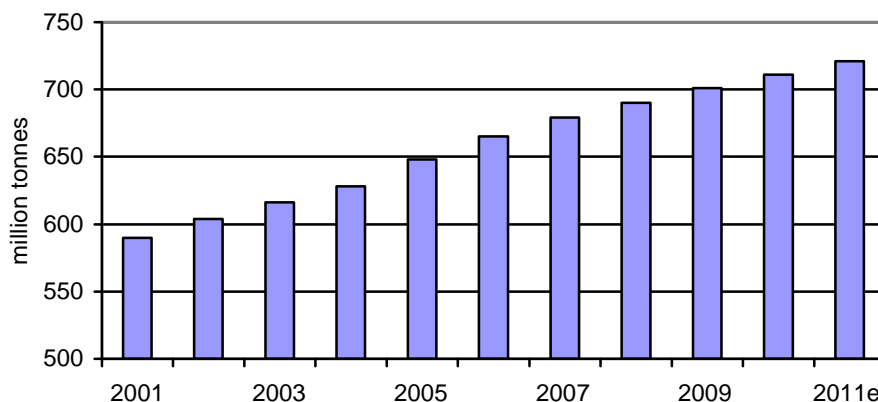
Source: National Farm Survey Data (2011) and Author's Estimates

Note: e = estimate

### 3.2 Estimated Output Values 2011

Global milk production figures are shown in Figure 12. Production increased to 723 million tonnes (mt) in 2011 up from 711mt in 2010.

**Figure 12: Global Milk Production**



Source: IDF  
Note: e = estimate

However, the extent of the increase in global import demand meant that higher international prices were required to balance supply and demand.

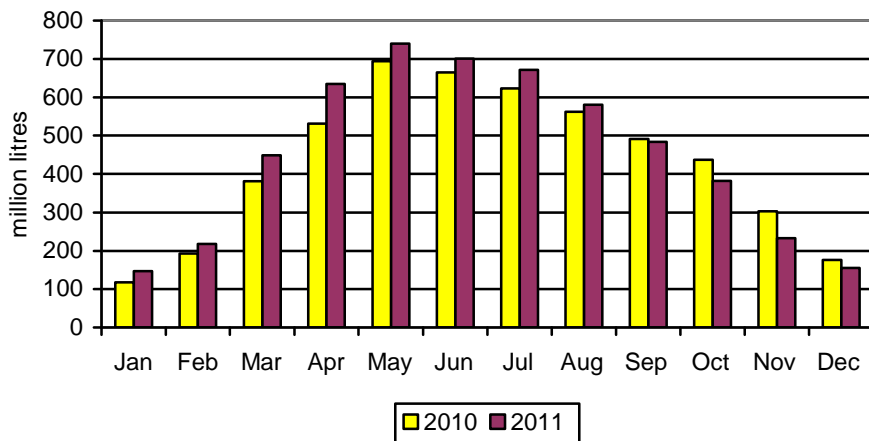
On an annual average basis international dairy product prices rose in 2012 relative to 2011, most notably for butter where prices were at a record level in the EU. In spite of a 2 percent increase in milk production in the EU, continuing strong consumption at the global level required that dairy commodity prices remained high.

As illustrated in Figure 13 monthly Irish milk deliveries in 2011 were characterised by a surge in the first half of 2011 relative to 2012, followed by a contraction in the second half of the year as measures were taken at farm level to prevent a super levy at the end of the 2011/12 milk quota year. Overall, milk production in the 2011 calendar year was up 3 percent on the 2010 level.

In 2011 CSO moved to a new methodology for its cattle enumeration and this has led to revisions to the data for some recent years. Irish dairy cow numbers have remained relatively stable at about 1.028 million head. Good weather conditions and additional feed supplementation in the first half of 2011, in light of the high milk price, resulted in an overall increase in milk yields per cow in 2011, but some of the additional milk produced will have been diverted to calf feeding due to milk quota constraints. There is also

anecdotal evidence of earlier drying off and a switch to once a day milking on farms which would otherwise have faced superlevy bills in 2012.

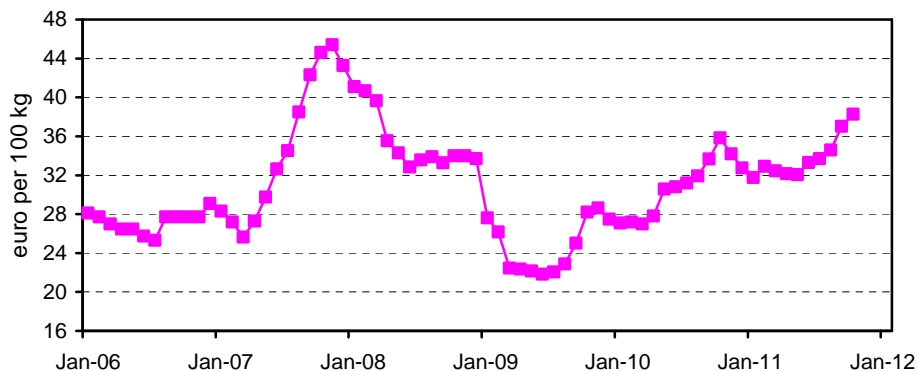
**Figure 13: Irish Milk Deliveries 2010 and 2011**



Source: CSO and DAFM  
 Figure for December 2011 is author's estimates

Figure 14 presents monthly Irish milk prices recorded by the European Commission from 2006 through to October 2011. In Ireland the 2011 manufacturing milk price continued to increase relative to the 2010 level. Monthly milk prices reached 33 cent per litre early in 2011 and were sustained at that level through the peak milk production period. Price rose further in the latter months of 2011 aided by high milk fat content.

**Figure 14: Irish Farm Gate Milk Prices (vat excl) 2006 - 2011**

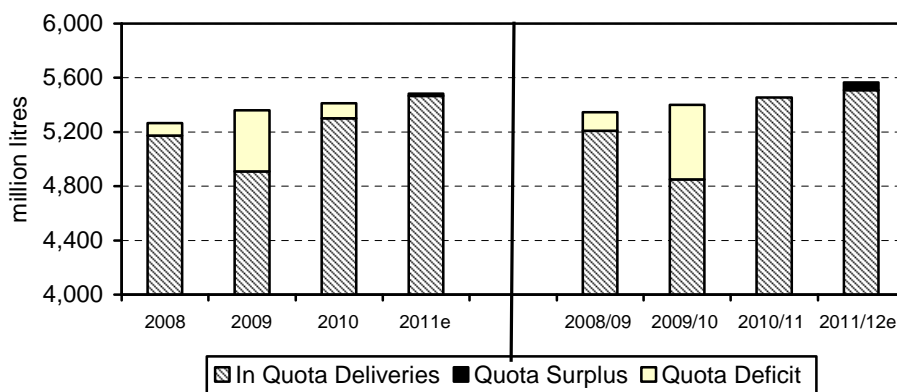


Source: European Commission  
 Note: Actual fat (vat excl)



The average milk price for 2011 is estimated to be about 34 cent per litre vat inclusive. This is an increase of 4 cent per litre, or approximately 13 percent, on the 2010 level. The positive impact of the higher 2011 milk price on Irish milk deliveries in 2011 can be observed in Figure 15.

**Figure 15: Irish Milk Deliveries (fat adjusted) and Quota Surplus/Deficit (calendar and quota year basis)**



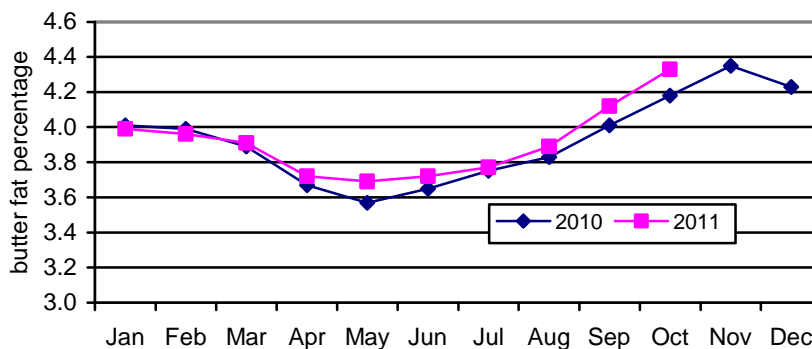
Source: Adapted from CSO data and Author's calculations

Note: Figures exclude imported milk for processing

e = estimate

On a calendar year basis Irish milk deliveries in 2011 will be 3 percent above the 2010 level. The trend in milk deliveries is suggestive of a superleiy at the end of the 2011/12 milk quota year based on a forecast quota surplus of about 1 percent. Elevated butterfat levels in 2011, as illustrated in Figure 16, are contributing to the size of the required butterfat adjustment. The average fat content of Irish milk deliveries in 2011 is likely to exceed 4 percent, inflating the adjusted milk deliveries figure still further.

**Figure 16: Butterfat in Irish Milk Deliveries 2010-2011**

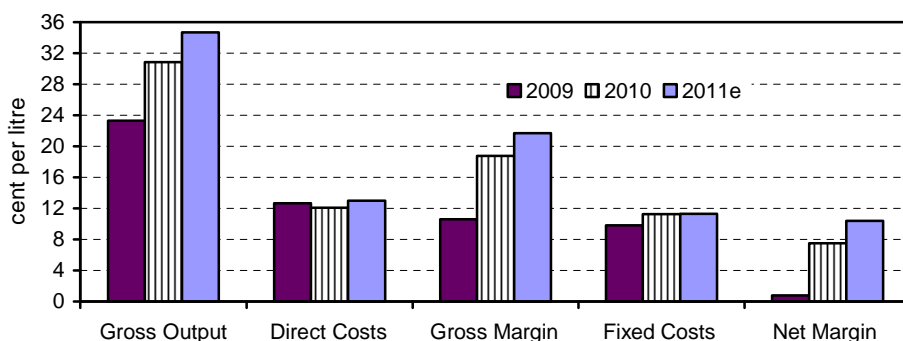


Source: CSO

### 3.3 Review of Dairy Enterprise Net Margins in 2011

The review of milk prices showed that the average milk price for 2011 was up 13 percent on the average for 2010, while the review of input costs concluded that total production costs on a per litre basis are estimated to have increased by 4 percent in 2011 relative to 2010. Figure 17 presents the estimated average gross output, production costs and net margin per litre for 2011 in comparison to 2010.

**Figure 17: Gross Output, Costs and Margins per litre for milk production in Ireland in 2009, 2010 and estimates for 2011**

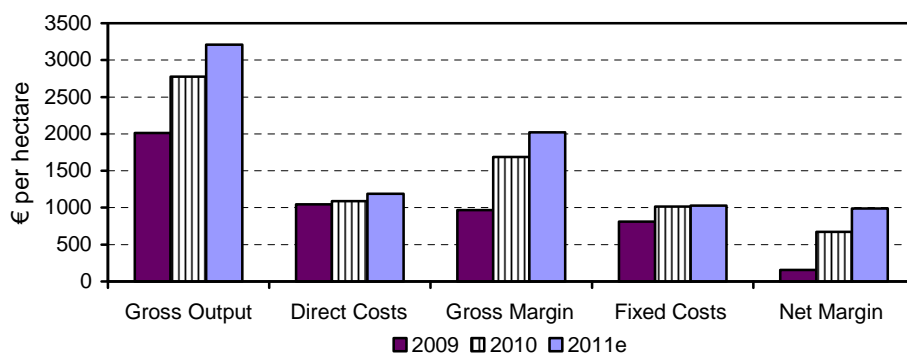


Source: National Farm Survey Data (various years) and Author's Estimates (2011)

Note: e = estimate

Gross output per litre is estimated to have increased in 2011 to 34.7 cpl. Input costs also increased but not to the same extent as output giving rise to an improvement in margins in 2011. It is estimated that the average net margin per litre increased from less than 7.5 cpl in 2010 to 10.4 cpl in 2011. Estimated average net margin per hectare is shown in Figure 18.

**Figure 18: Gross Output, Costs and Margins per Hectare for Milk Production in Ireland in 2009, 2010 and estimate for 2011**



Source: National Farm Survey Data (various years) and Author's Estimates (2011)

Note: e = estimate

Net margin per hectare increased from 2010 to 2011, rising from an average of €674 per hectare in 2010 to an estimated € 991 per hectare in 2011. It is estimated that gross output per hectare increased by 16 percent from 2010 to 2011. This is slightly more than the increase recorded on a per litre basis as there was also an estimated increase in the delivery volume per hectare. Net margin per hectare is estimated to have increased by 47 percent in 2011 relative to 2010.

#### **4. Outlook for 2012**

In this section we forecast the expenditure on various input items in 2012, the annual average milk price that will prevail and the likely profit margins in dairying in 2012.

##### **4.1. The Outlook for Input Expenditure**

###### **4.1.1 Feedstuffs – usage and price 2012**

The 2011 Irish harvest prices for feed wheat and barley increased relative to the 2010 figure due to the continuing shortage of grain on international markets. Prices for cereals in 2011 were up about 15 percent on the 2010 level.

Farmers purchasing feed in the first half of 2012 can expect to pay slightly more than they did in the corresponding period in 2011. However, it is anticipated that feed prices will fall as 2012 progresses due to the anticipated lower 2012 grain harvest prices. In Ireland the forecast is for a decline in cereal prices in 2012 of about 12 percent compared to the 2011 level.

It is anticipated that milk production will decrease by 3 percent in 2012 relative to 2011. This decrease would reflect the need for a depressed level of milk production early in 2012 (relative to early 2011) so as to avoid a superlevy. Dairy product and milk prices are expected to decline due to better availability of product for export globally, as will feed prices in response to a general downturn in international grain prices. It is assumed therefore that the level of concentrate use in 2012 will be more or less unchanged on the 2011 level.

Overall, a decrease in feed prices of 8 percent is forecast for dairy farms in 2011. An 8 percent decrease in feed price, coupled with no change in feed volume would leave feed expenditure in 2011 8 percent down on the 2011 level.

#### **4.1.2 Fertiliser & Contracting Costs– usage and price 2012**

Elevated energy prices and global competition for relatively fixed fertiliser supplies, provide a basis for higher fertiliser prices in the early part of 2012 than were experienced in 2011.

Higher Urea and CAN prices are expected in 2012 compared with 2011. Price increases could be of the order of 7 percent in 2012 relative to the average 2011 level. As a result, the prices paid for fertiliser by Irish dairy farmers in the first half of 2012 will be higher than the 2011 average level. It is reasonable to expect that fertiliser usage levels in 2012 will be on a par with 2011.

With prices up 7 percent and usage levels unchanged, this would leave total expenditure on fertiliser up 7 percent in 2012. Given that fuel prices are expected to be unchanged in 2012, no increase in agricultural contracting costs is forecast. Overall this would mean that total expenditure on pasture and forage would be up 4 percent in 2012 compared to the 2011 level.

#### **4.1.3 Energy and Fuel – usage and price 2012**

Increases in crude oil and natural gas prices took place in 2011 and market experts consider that oil exporting countries will adjust supply to try to maintain crude oil prices close to US \$100 in 2012.

As of December 2011, the average Brent crude oil futures price for 2012 is about \$100 pb. This equates to about €76 pb at December 2011 exchange rates which would represent a decrease of about 1 percent on the 2011 level. Specific Irish inflationary pressures also exist through the rising carbon levy and VAT on fuel. A weakening of the euro versus the US dollar is also possible, but overall we do not see an increase in the annual average price of farm diesel in 2012 relative to the average for 2011. Electricity prices increased late in 2011 and barring a further change in energy price in the first half of 2012, electricity prices will still be up on the average level for 2011 by about 5 percent in 2012. This would leave overall expenditure on energy and fuel up about 2 percent in 2012 relative to the 2011 level.

#### **4.1.4 Other Direct and Fixed Costs – usage and price 2012**

Given the continuing Irish economic difficulties and high level of unemployment, the increase in labour costs and general inflation in 2012 are forecast to be no more than 1 percent. No change in fixed costs is anticipated in 2012.

#### ***4.2. The Outlook for Dairy Markets in 2012***

As of December 2011 international dairy prices are continuing to move downward, as they have since the middle of 2011. In regions where grain feeding predominates there may be some reduction in cost pressures on the back of lower feed prices.

In the EU some further expansion in milk production in Member States where the quota is not binding could emerge in 2012. EU milk production in 2011 is up 2 percent on the 2010 level. Early season 2011/12 New Zealand milk production is up on the previous season leading to forecasts of increased New Zealand dairy exports in 2012 of about 1.5 percent. US production is likely to increase by at least 1 percent.

In contrast to 2010 and 2011 Irish milk prices are likely to move downward, but it must be emphasised that any such reduction would be from the very high 2011 level. Overall, it is estimated that annual average milk price in 2012 could be just over 31 cents per litre.

A recession in the EU in 2012 seems likely and if the current economic situation were to bring about a return to a wider global recession in 2012 then a more pronounced decrease in Irish milk prices could emerge. Dairy products are one of a number of livestock products whose price is more sensitive to adverse income shocks in developing countries.

#### ***4.3. The Outlook for Dairy Enterprise Net Margins in 2012***

In aggregate, input expenditure is expected to decrease in 2012, by approximately 2 percent per hectare, and together with a reduction in milk prices, net margins in 2012 are forecast to contract relative to the 2011 level. Figure 19 presents margins on a per hectare basis.

Based on the forecast 7 percent reduction in Irish milk prices to just over 31 cents per litre in 2012 and allowing for some reduction in production in calendar year 2012 of about 2 percent to avoid a reoccurrence of superlevy management problems, average gross margins per hectare are forecast to be €1,734 per hectare in 2012 and net margin is forecast to be €683 per hectare.

**Figure 19: Gross and Net Margin for Milk Production per Hectare with Forecast for 2012**

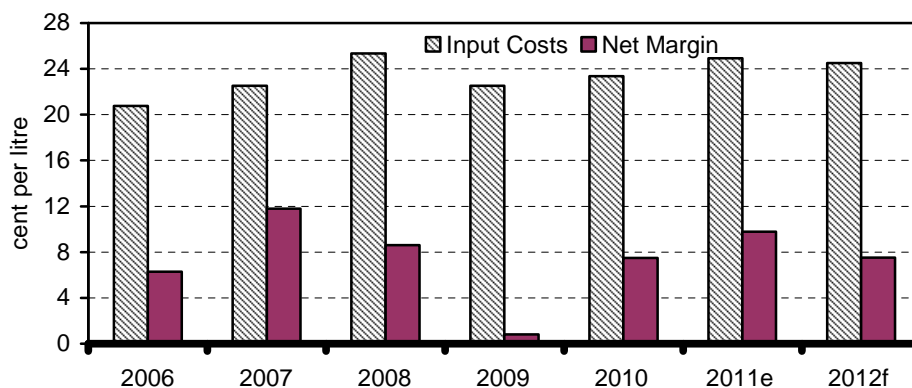


Source: National Farm Survey Data (Various Years) and Author's Estimates

Note: e = estimate f= forecast

In Figure 20 the forecast for average net margins per litre in 2012 is presented. Due to the projected decrease in milk deliveries relative to 2011, margins per litre are forecast to decline by slightly less than margins per hectare. Under this forecast the average net margin for 2012 is estimated to be 7.5 cpl. This would represent a decline of 28 percent on the estimated 2011 average net margin figure, but this forecast margin for 2012 would not be very different from the net margin per litre achieved in 2010.

**Figure 20: Net Margin per Litre for Milk Production in Ireland 2006 to 2010 with Estimate for 2011 and Forecast for 2012**



Source: National Farm Survey Data (Various Years) and Author's Estimates

Note: e = estimate f = forecast

## **5. Concluding Comments**

Following a recovery in 2010, dairy margins improved further in 2011, mainly due to higher milk prices. The dairy sector in Ireland continued to benefit particularly from high world dairy product prices but some producers have also run into difficulties with quota management.

Forecast supply and demand conditions suggest that dairy market prices will remain high in 2012 although not as high as in 2011. A slight decline in overall production costs per hectare in 2012 relative to 2011 is forecast.

Based on these forecast output price and input cost movements, dairy margins are likely to decline in 2012 compared with 2011. Nevertheless, forecast dairy margins in 2012 should be close to 2010 levels. Given that there is no prospect of a shortfall in Irish milk production relative to milk quota, producers will need to remain vigilant in 2012 in order to avoid the pressures created in 2011 by excess early season milk production.

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# SITUATION AND OUTLOOK FOR CATTLE 2011/12

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## **1. Introduction**

This paper presents a review of the economic performance of cattle production in 2010 based on data provided by the National Farm Survey (NFS) (Hennessy et al. 2011). Estimated returns from cattle production in 2011 and the forecast outlook for 2012 are also presented.

Cattle prices in 2011 for all animal age categories have been substantially higher than in 2010, and this has led to an increase in the value of cattle production on Irish farms. The impact of these higher output prices on margins more than offset the higher cost of concentrate feed and fertiliser. Average gross margins on cattle production systems are estimated to have increased in 2011 relative to 2010; however the prevalence of negative market-based net margins on Irish cattle production systems is estimated to have persisted in 2011. The outlook for cattle markets in 2012 remains positive with prices expected to remain well above 2010 levels. The supply of finished cattle in Ireland and the UK is expected to remain tight in 2012. The on-going contraction in the EU cow herd is expected to lead to a lower indigenous EU beef supply. This factor, combined with an international supply capacity that is not expected to grow significantly in 2012, points to a relatively stable price outlook. However, the demand side within the EU remains particularly uncertain. A second EU wide recession as a result of the ongoing EU debt crisis would negatively affect EU demand for beef and almost certainly lead to lower cattle prices in 2012.

Unless stated otherwise, all figures referred to in this paper are in nominal terms and all income and profit estimates exclude the value of decoupled income support payments.

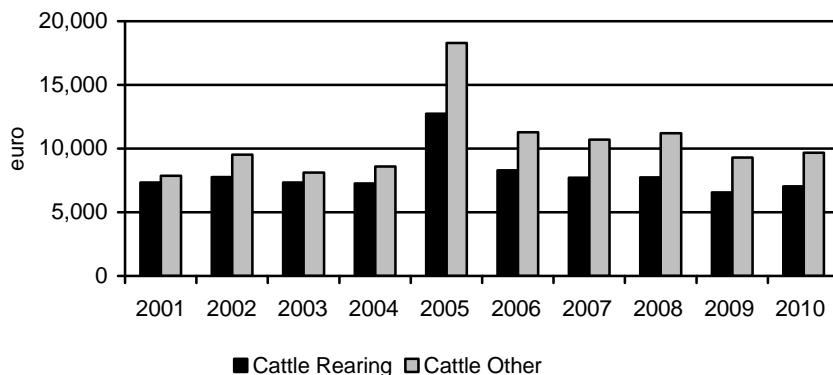
## **2. Review of the Economic Performance of Beef Farms in 2010**

The trends in average family farm income (FFI) for the two main classifications of cattle farms in the Teagasc NFS over the period 2001 to 2010 are shown in Figure 1. In 2010 the average FFI on cattle rearing and other cattle farms had increased slightly compared with 2009 levels but still remained well below 2008 levels. The FFI on cattle rearing farms increased

by 7 percent when compared with the 2009 level while FFI on Other Cattle farms was 4 percent higher, however despite this increase the average FFI on both farm types still remains low at only €7,023 and €9,676 respectively.

Figure 1 also illustrates that the divergence between the average FFI earned on farms in the cattle rearing system and the average income earned on the cattle other system that emerged post decoupling has been maintained. In 2001 the difference in average FFI between cattle rearing and cattle other farms was €500. By 2010 the difference in average family farm incomes earned on these two cattle farm types had grown to over €2,600. As noted in Breen and Hanrahan (2010) this divergence is a consequence of the decoupling of direct payments and the negative impact of this decision on the prices of weanlings and store animals sold by cattle rearing enterprises. The positive impact of decoupling on the income of those farms purchasing and finishing these animals, who paid lower prices for cattle purchased in, is also reflected in the higher FFI on the cattle other system.

**Figure 1: Family Farm Income on Cattle Rearing and Cattle Other Farm Systems: 2001 to 2010**



Source: National Farm Survey (various years).<sup>2</sup>

Specialist cattle farms, as defined by the NFS farm typology, accounted for approximately 55,400 farms or almost 56 percent of the NFS farm population in 2010. However, there were a further 33,300 non-specialist cattle farms, i.e. farms with a cattle enterprise that accounted for less than

<sup>2</sup> The higher FFI reported in 2005 was due to a one-off increase in FFI as a result of the changeover to the Single Farm Payment and the carryover of direct payments from 2004 into 2005.

60 percent of standard gross output. In total 88,700 farms or 89 percent of the population of farms surveyed by the NFS in 2010, had a cattle enterprise on their farm. Thus, cattle production is by far the most prevalent agricultural enterprise on Irish farms. Given the large number of Irish farms with a cattle enterprise and the large variation that exists between the cattle systems operated, a high degree of variation in output and costs between farms can be expected.

There is considerable heterogeneity in Irish beef production systems. However, as noted earlier, many farms that are not classified as cattle farms under the NFS farm typology have a beef enterprise. All farms, both specialist cattle and non-specialist cattle farms, with greater than 5 cattle livestock units are included in this analysis. In Section 2 we analyse the economic performance of Irish cattle production in 2010 by classifying these farms on the basis of their dominant cattle system. In sections 3 and 4 we present the estimated net margin performance of Irish cattle farms in 2011 and the forecasted net margin performance for 2012 respectively. Net margin is calculated as gross margin less overhead costs. The allocation of overhead costs (sometimes referred to as fixed costs) to different enterprises on a farm is done on the basis of the enterprise share of farm gross output in 2010.

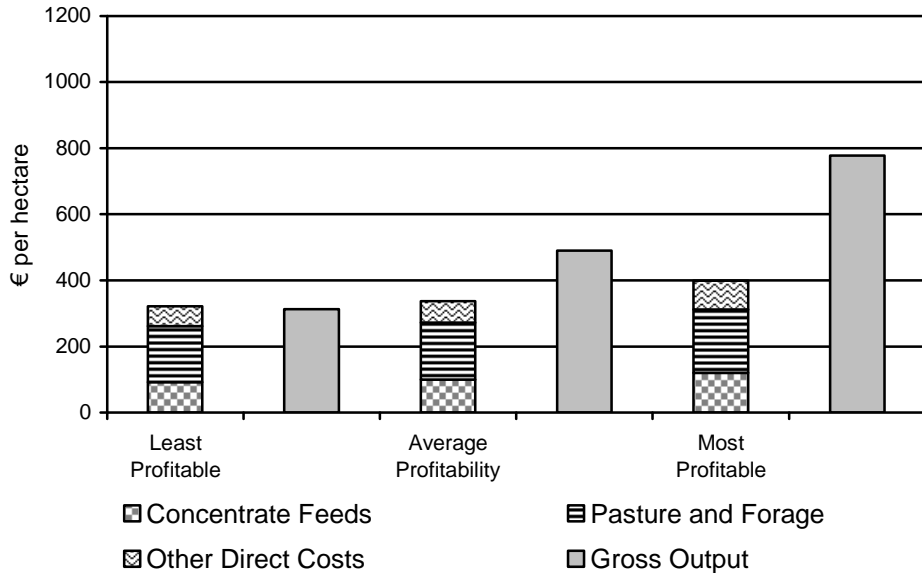
### ***2.1 Comparison of Alternative Beef Production Systems in 2010***

This section discusses the cost structure for four of the more common categories of beef production systems prevalent in Irish agriculture: single suckling (SS), cattle reared on dairy (RD), weanling to store/finish (WF) and store to finish (SF). We have categorised each of the four cattle enterprises analysed on the basis of gross margin per hectare and broken these sets of farms into three equally sized groups which we have termed farms with *least*, *average* and *most* profitability.

**Single Suckling (SS):** In 2010 the average direct cost of production per hectare (ha) for SS beef systems ranged from €322 per hectare on those farms with lowest average gross margin to €399 per hectare on the most profitable farms (see Figure 2 below). The cost of concentrate feed along with the cost of pasture and winter forage typically accounts for 80 percent of the direct costs of production on SS farms. The average expenditure on concentrate feed varied from €92 per hectare on the low profitability farms to €121 per hectare on the high profitability farms. There was considerably more variability in the average gross output between the least profitable and most profitable farms. The most profitable third of SS farms earned an average gross output of €777 per hectare compared with an average gross output of €313 per hectare on the least profitable farms. This variability in average gross output is in part due to a higher stocking on the more

profitable farms. The highest profitability farms had an average stocking rate of 1.52 livestock units (LU) per hectare compared with only 0.94 LU per hectare for those farms with the lowest profitability.

**Figure 2: Variation in Total Production Costs and Gross Output on Single Suckling Beef Farms in 2010**



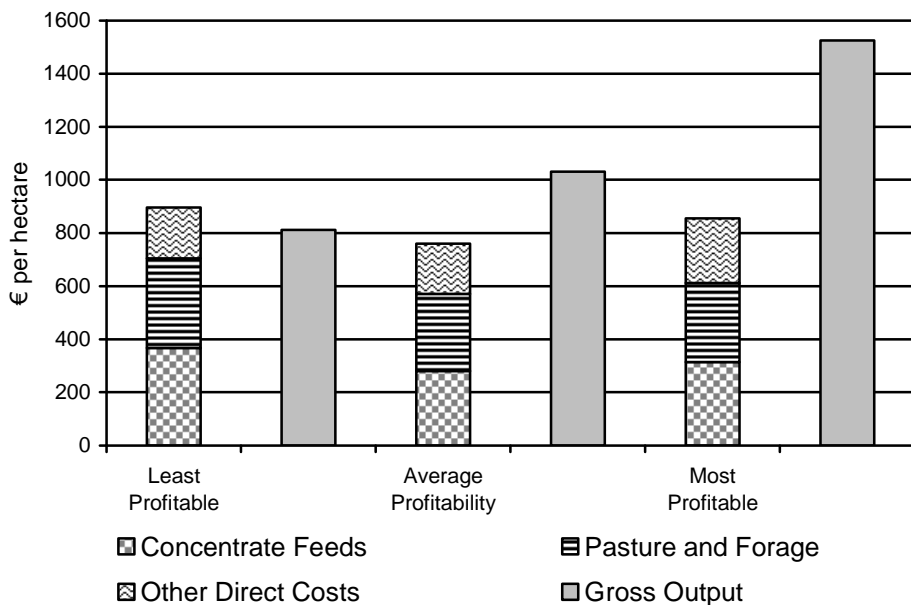
Source: 2010 National Farm Survey Data (2011).

**Cattle Reared on Dairy Farms (RD):** The second production system analysed involves the rearing of cattle born on the farm to a dairy herd. There are a number of points to note when comparing the RD production system with the SS system. First, while the average gross output earned on RD farms is significantly larger than that earned on SS farms, this is associated with higher average direct costs of production. These higher gross output and costs of production per hectare on RD farms are largely due to the higher stocking rate on these farms when compared with SS farms. The average stocking rate on the RD farms in 2010 was approximately 1.86 cattle LU per forage hectare compared with between 1.2 and 1.3 LU per forage hectare for the other three cattle systems examined.

Average direct costs of production were lowest on those RD farms with average profitability (€760 per ha) and highest on the least profitable farms (€896 per ha) (See Figure 3 below). Total expenditure on concentrate feed is substantially higher on RD farms than on SS farms. The high expenditure on concentrate feed is due in part to the earlier weaning of calves on dairy farms and the fact that, other things being equal, finishing dairy cross cattle

generally requires higher volumes of concentrate feed per animal than would be required for non-dairy cross animals. Other direct costs are also substantially higher on RD farms this is in part due to the cost of milk and milk substitutes that are fed to calves. While the expenditure on concentrate feed and other direct costs on RD farms are double the level on SS farms, expenditure on pasture and winter forage on RD farms is somewhat closer to the level of expenditure on SS enterprises. The most profitable one third of RD farms had a gross output of €1,526 per hectare compared with €812 per hectare on the least profitable farms.

**Figure 3: Variation in Total Production Costs and Gross Output on Cattle Reared on Dairy Farms in 2010**

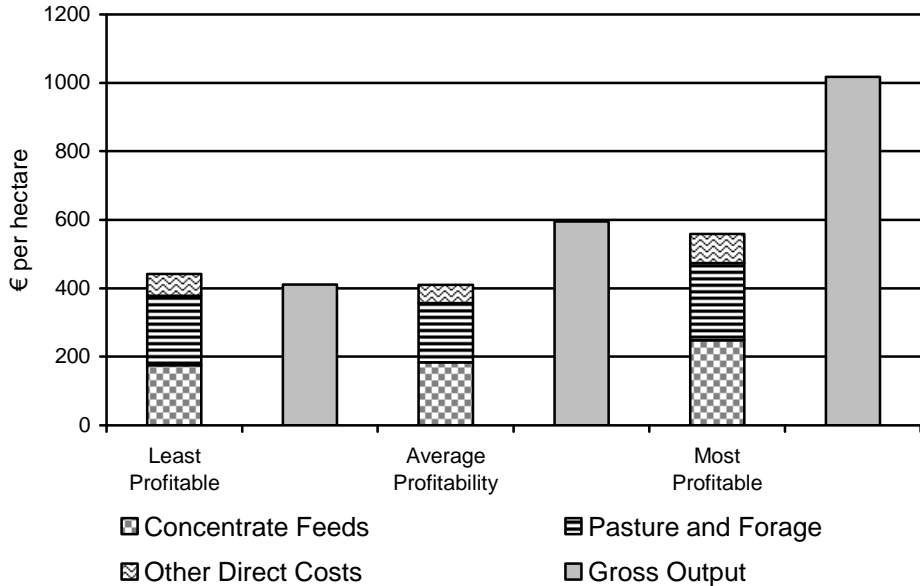


Source: 2010 National Farm Survey Data (2011).

**Weanling to Finish (WF):** There is a considerable degree of variability in the direct costs of production on farms specialising in buying weanlings which are either sold as finished animals or sold as stores (WF). Total direct costs of production are lowest on those farms with average profitability levels (€410 per ha). A considerable proportion of the variability in direct costs is due to differences in expenditure on concentrate feeds (see Figure 4). Those farms which earned the highest gross margin per hectare also had the highest direct costs of production in 2010, however these higher direct costs were more than offset by the high gross output earned on these farms. The most profitable farms had an average gross output of €1,018 per hectare compared with only €411 per hectare for the least profitable farms. The average stocking rate on the most profitable

farms was 1.51 LU per hectare compared with only 1.1 LU per hectare for the least profitable farms.

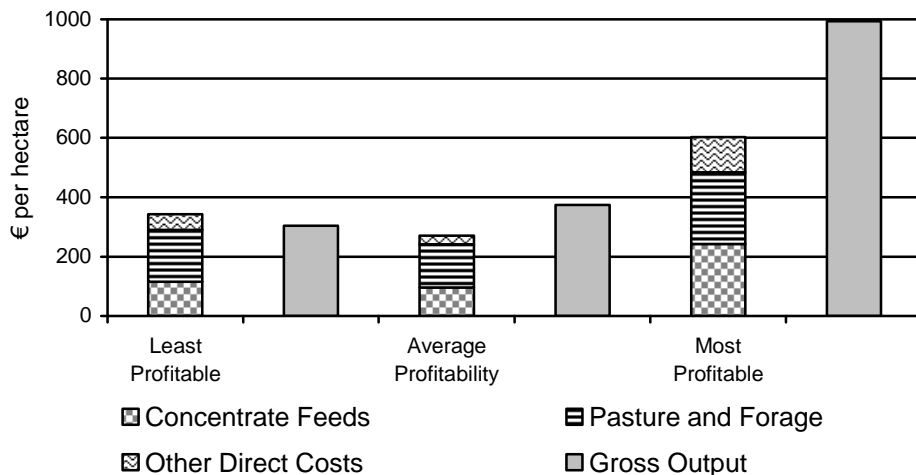
**Figure 4: Variation in Total Production Costs and Gross Output on Weanling to Store/Finish Beef Farms in 2010**



Source: 2010 National Farm Survey Data (2011).

**Store to Finish (SF):** The final system examined is the store to finish system (SF), in which animals are purchased as stores and brought to finish. Those farms in the most profitable one third are typically operating a more intensive system than the farms in the other two groups. The average stocking rate on the most profitable one third of farms is 1.6 LU per hectare compared with only 0.99 LU per hectare for the least profitable farms. Similarly the most profitable farms finished an average of 90 animals per farm in 2010 this compares with an average of only 30 animals per farm for the least profitable group. As with the WF farms, expenditure on concentrate feed on SF farms is more variable between farms operating this system than expenditure on pasture and winter forage. As illustrated in figure 5 below concentrate feed expenditure on SF farms in 2010 ranged from an average of €243 per hectare on the most profitable farms, to less than €96 per hectare on the average profitability farms. Again this variability in expenditure per hectare is in part due to the differences in average stocking rate between farms.

**Figure 5: Variation in Total Production Costs and Gross Output on Store to Finish Beef Farms in 2010**



Source: 2010 National Farm Survey Data (2011).

The results presented highlight the large differences in costs per hectare on what we have termed *least*, *average* and *most* profitable farms. However, it is important to recall that there are also substantial variations in gross output across farms, and that high levels of gross output per hectare are often associated with high levels of direct costs of production.

Table 1 summarises the average direct costs, gross output and gross margin across each of the four production systems on a per hectare basis. The highest average gross margin per hectare in 2010 was earned on the RD farms, where the average market based gross margin was €305 per hectare. The SF farms had an average gross margin of €181 per hectare, while the SS and WF farms earned average gross margins of €176 and €182 per hectare respectively.

**Table 1: Average Market Gross Margin per Hectare across Beef Production Systems in 2010**

	Single Suckling	Dairy Beef	Weanling to Finish	Store to Finish
<b>Gross Output ha<sup>-1</sup></b>	529	1,145	644	615
<b>Direct Costs ha<sup>-1</sup></b>	353	840	462	434
<b>Gross Margin ha<sup>-1</sup></b>	176	305	182	181

Source: 2010 National Farm Survey Data (2011).

As well as looking at total gross output, it is also important to consider the components of gross output and how these change between systems of production. Table 2 below shows the main components of gross output on the four types of cattle enterprises analysed using NFS data. While the value of total cattle sales on WF and SF farms are higher than on SS and RD farms the WF and SF farms also incur a substantial cost in acquiring the cattle as shown by their cattle purchases per hectare. In contrast average cattle purchases per hectare on SS and RD farms are quite low as these farms are predominantly engaged in the rearing of animals born on the farm. The Suckler Cow Welfare Scheme continues to be an important source of income for farms in the SS category but makes only a negligible contribution to average gross output on the other three cattle systems. The “Other” component includes change in stock value, as well as the value placed on animals transferred from the dairy herd to the beef herd and the value placed on animals transferred from the beef herd to the dairy herd, i.e. replacement dairy heifers. Other things being equal an equivalent positive and persistent shock to calf, weanling, store and finished cattle prices would be expected to affect the four systems differently. Enterprises where both the price of cattle purchased in and sold out increases would be less affected than systems based predominantly on rearing cattle born on the farm.

**Table 2: Average Cattle Gross Output per Hectare across Beef Production Systems in 2010**

	Single Suckling	Dairy Beef	Weanling to Finish	Store to Finish
<b>Cattle Sales ha<sup>-1</sup></b>	651	1,019	1,609	2,153
<b>Cattle Purchases ha<sup>-1</sup></b>	84	75	887	1,451
<b>Other ha<sup>-1</sup></b>	-61	200	-80	-88
<b>Suckler Cow Welfare Scheme ha<sup>-1</sup></b>	23	0	1	0
<b>Total ha<sup>-1</sup></b>	529	1,144	644	615

*Source: 2010 National Farm Survey Data (2011).*

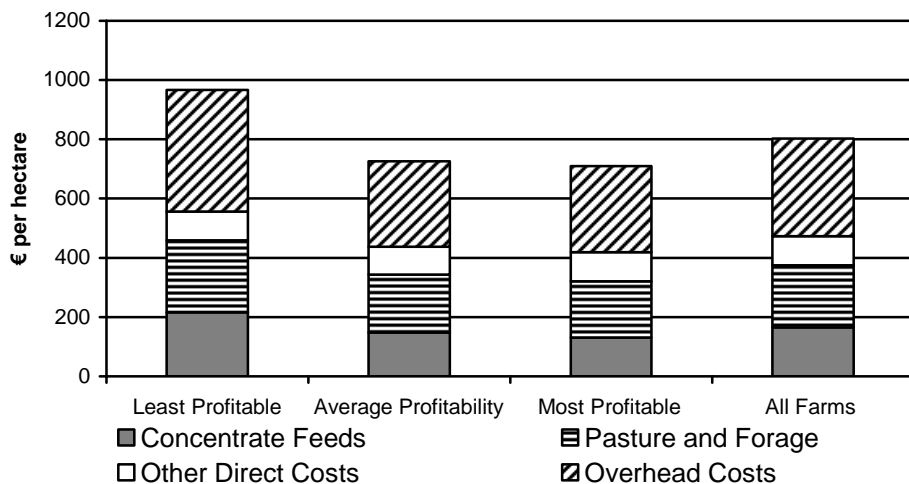
## **2.2 Comparison of Returns to Cattle Production**

When comparing the costs of cattle production between groups of farms organised on the basis of net margin per hectare there is a considerable degree of variability between the least profitable one third of cattle farms and the other two thirds of cattle farms. The average total cost of production on the least profitable one third of cattle farms in 2010 was €968 per hectare, which was more than 30 percent higher than the average cost of production per hectare on the other two thirds of cattle farms. As we can



see from Figure 6, differences in expenditure on concentrate feed accounts for a large share of the difference in total costs between Irish cattle farms. The least profitable farms on average spent €216 per hectare on concentrate feeds in 2010, compared with €148 and €131 per hectare for the average and most profitable farms respectively. Average expenditure on pasture and winter forage on the least profitable cattle farms was also higher than on the farms with average and above average levels of profit per hectare. The other major difference in costs between the least profitable third of cattle farms and other cattle farms arises from the level of overhead or fixed costs. On the least profitable farms these costs amounted to €411 per hectare, 42 percent higher than the level on the most profitable one third of beef farms.

**Figure 6: Variation in Total Production Costs for all Cattle Farms in 2010**



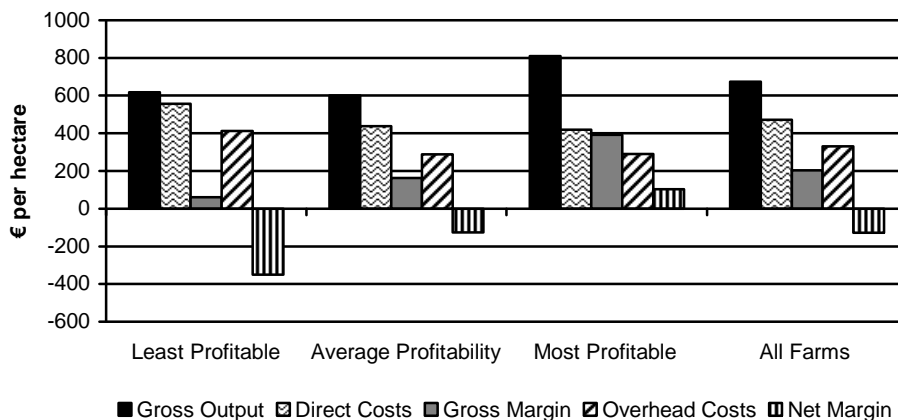
Source: 2010 National Farm Survey Data (2011).

While the mean costs of production on the average and most profitable cattle farms are roughly similar, the difference in their profitability arises from differences in the value of gross output on these two groups of farms. As shown in figure 7, the average gross output on the most profitable one third of cattle farms in 2010 was €810 per hectare, compared with an average gross output of €618 per hectare for the least profitable farms.

The average gross margin on the most profitable farms was €392 per hectare, while the average gross margin on the least profitable one third of Irish cattle farms was €61 per hectare. In 2010 only the most profitable third of farms with a cattle enterprise on average earned a positive net margin from cattle production, with an average net margin of €102 per hectare. The

least profitable one third of Irish cattle farms in 2010 earned on average a negative net margin of €350.

**Figure 7: Variation in Output, Costs and Net Market Margin per hectare for all Cattle Farms in 2010**



Source: 2010 National Farm Survey Data (2011).

### 3. Estimated Performance of Irish Cattle Farms in 2011

This section of the paper presents a review of the economic performance of Irish cattle farms in 2011. A discussion of the estimated changes in input usage and input costs in 2011 is first presented and this is followed by a discussion of estimated changes in output value. The estimates of margins earned by the different cattle enterprises in 2011 are then presented.

#### 3.1 Estimated Input Usage and Price 2011

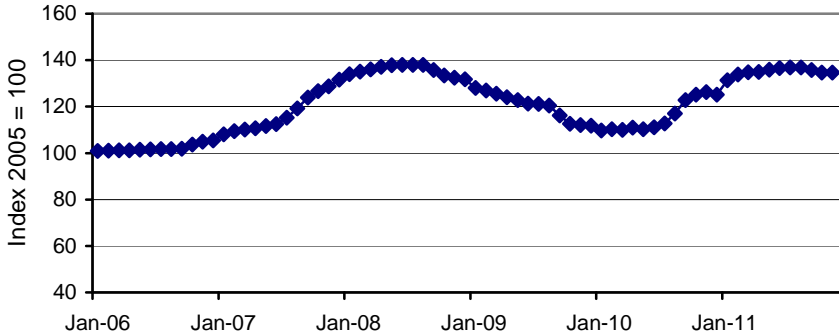
##### 3.1.1 Feedstuffs

At the time of writing (December 2011), three quarterly bulletins of official Department of Agriculture, Food and the Marine (DAFM) data on the quantity of meals fed to the beef herd were available for 2011. For the first nine months total beef feed use was approximately 6 percent lower than for the equivalent period in 2010. Assuming the quantity of concentrate feed purchased for the final three months of 2011 is similar to the level for the corresponding period in 2010, then a total reduction in the volume of feed purchased of 3 percent can be expected relative to the 2010 levels.

Figure 8 presents the monthly price index for cattle feed stuffs for the years 2006 to 2011. Cattle feed prices started to decline in late 2009 and remained relatively low in early 2010. A reduction in the volume of cereals

traded internationally led to an increase in global cereal prices in the second half of 2010. This was reflected in Irish cattle feed prices which started increasing again from August 2010 onwards. By the end of 2011 cattle feed prices were back to a level similar to that paid in 2008. Cattle feed prices in 2011 are estimated to have been 16 percent higher on average than in 2010.

**Figure 8: Monthly Price Index of Cattle Meal in Ireland 2006 to 2011**



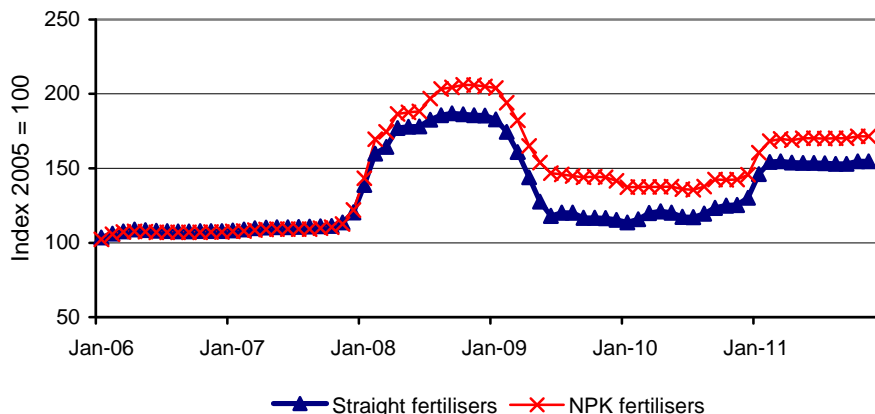
Source: CSO.

With volumes fed anticipated to have fallen by 3 percent and the average feed prices having increased by 16 percent, this is equivalent to an increase of 12.5 percent in the total expenditure on feed by beef farmers in 2011 compared with 2010.

### **3.1.2 Fertiliser – usage and price 2011**

Figure 9 presents the change in fertiliser prices over the past five years. After declining significantly in 2009, fertiliser prices remained relatively stable for most of 2010 before starting to increase again in late 2010 and early 2011, and remained high throughout 2011. The bulk of the fertiliser purchased for the cattle system is likely to have been purchased in the first six months of the year at a time when fertiliser prices were more than 20 percent higher than for the corresponding period in 2010. Overall the cost of fertiliser is estimated to have increased by 25 percent in 2011.

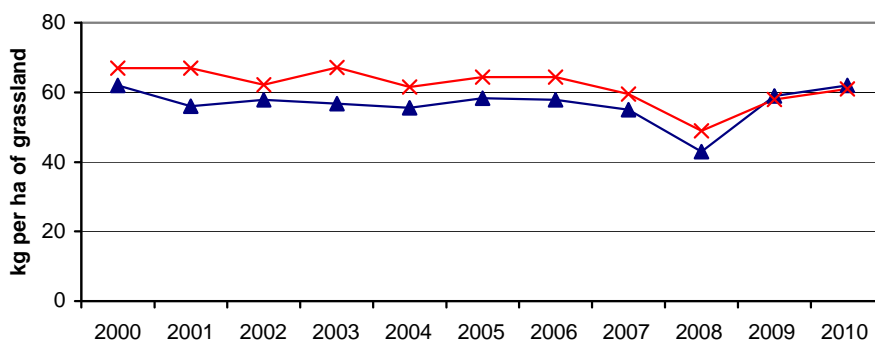
**Figure 9: Monthly Price Index of Fertiliser in Ireland from 2006 to 2011**



Source: CSO

Data from the DAFM indicate that there was a small decrease in total sales of nitrogen, phosphorous and potassium in 2011 compared with 2010. Sales of nitrogen were down 5 percent in 2011, while sales of phosphorous and potassium were 2 percent and 3 percent lower respectively. As can be seen in Figure 10 below average fertiliser application on specialist drystock farms is typically quite low and year on year changes in fertiliser application rates also tend to be small. It is estimated therefore that in 2011 average fertiliser application rates have declined by 5 percent.

**Figure 10: Nitrogen Fertiliser Application on Specialist Cattle Farms 2000-2010**



Source: National Farm Survey (various years).

Given an increase in the fertiliser price of 25 percent and a reduction in the volume of fertiliser purchased of 5 percent, the overall expenditure in 2011 on fertiliser by Irish cattle farms is estimated to be up by almost 19 percent.

### **3.1.3 Energy and Fuel – usage and price 2011**

2011 has seen crude oil prices increase from \$92 per barrel (pb) on average in Jan 2011 to almost \$110 pb in December 2011. The average price for 2011 was €108 pb. Over the course of 2011 the euro strengthened versus the US dollar and as a result the extent of the percentage and absolute crude oil price increase relative to 2010 was smaller when expressed in euro terms. The average crude oil price for 2011 in euro was €77 pb, an increase of 33 percent on the 2010 value of €58 pb. A carbon tax was introduced by the Irish Government in mid 2010 and this also increased fuel prices paid by Irish farmers. Overall, diesel costs in Ireland are estimated to have increased by 18 percent when compared with their 2010 level.

With the increase in diesel prices in 2010 it is anticipated that contracting charges will also have increased somewhat. Fuel related costs account for about 25 percent of total contracting costs. The other components of contracting costs are assumed to have remained largely unchanged and therefore it is estimated that contracting costs in 2011 have increased by 4.5 percent compared with 2010. Given that most of the contractor work on cattle farms involves making silage and applying farmyard manure and artificial fertiliser, there is very little scope to change the “volume” of contractor services consumed. Consequently, no change in volume of contractor services used is assumed and therefore the estimated 5 percent increase in price is reflected in an increase in expenditure on contract work.

Electricity costs change infrequently in Ireland due to price regulation. The most recent price change was an increase in October 2011. On an annual average basis this means that prices have risen by about 5 percent in 2011, relative to 2010. Given that no change in volume consumed is assumed to have occurred in 2011, expenditure on electricity on cattle farms is estimated to have increased by 5 percent in 2011 relative to 2010.

### **3.1.4 All Other Direct and Fixed Costs– usage and price 2011**

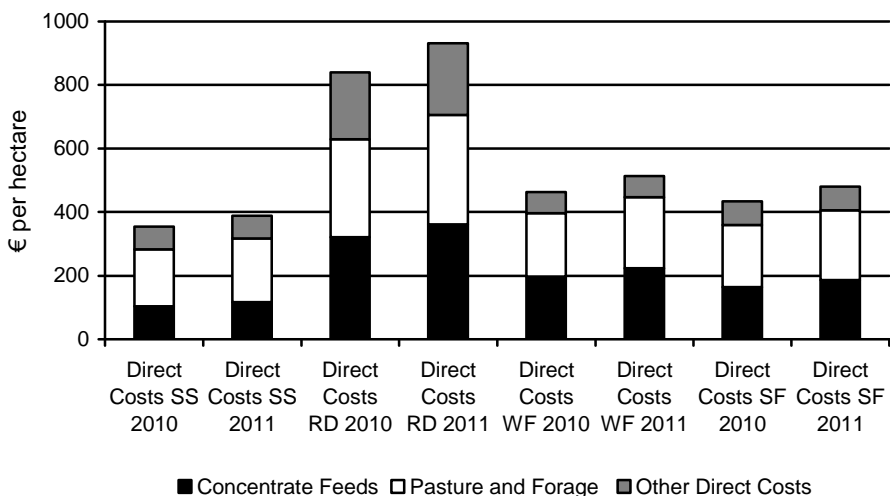
Agricultural wages in Ireland are estimated to have increased by 1 percent between 2010 and 2011, while the quantity of labour used on farms is assumed to have remained unchanged. Therefore we estimate that the expenditure on hired labour used by Irish cattle farms has increased by 1 percent in 2011. Other direct costs include the value of milk and milk substitutes fed to calves and this cost is estimated to have increased

significantly in line with the general increase in milk prices seen in 2011. We have assumed an increase of 13 percent in this line of expenditure. The cost of other overhead (fixed) costs is estimated to have remained largely unchanged. Given the nature of overhead costs, there is little capacity for changes in volume used, and therefore no change in expenditure on other fixed costs is assumed in 2011 compared to 2010.

### 3.1.5 Estimate of Direct Cost Expenditure for 2011

Figure 11 compares the average direct costs of production for the four featured production systems in 2010 with the estimated direct costs for 2011. Average direct costs are estimated to have increased across all four of the production systems examined. The main drivers of this increase in direct costs of production in 2011 are the higher prices for concentrate feed and fertiliser in 2011 compared with 2010. The increase in the value of milk fed to calves also led to a greater increase in the other direct costs per hectare on RD farms. Overall, the total direct costs on SS farms are estimated to have increased by €35 per hectare between 2010 and 2011 while total direct costs on the SF farms is estimated to have increased by €46 per hectare.

**Figure 11: Comparison of Actual 2010 Direct Costs and Estimated 2011 Direct Costs for main Cattle Systems**



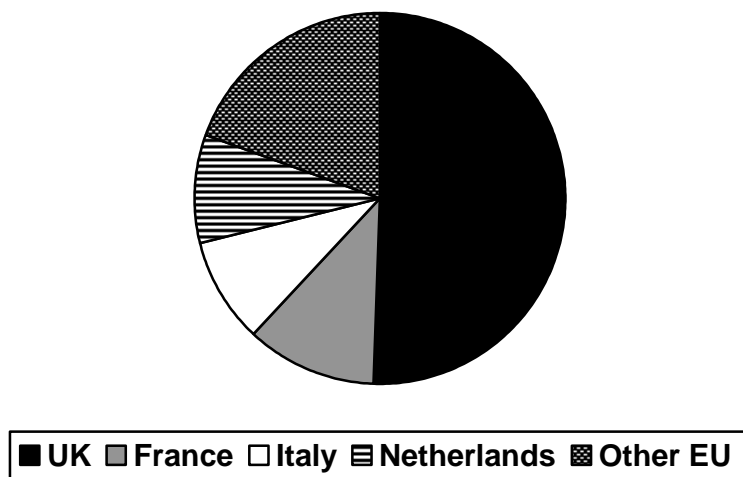
Source: National Farm Survey 2010 and Authors' Own Estimates 2011.

### 3.2 Estimated Output Values 2011

Ireland exports over 80 percent of its beef production and is the fifth largest exporter of beef in the world. The export dependence of the Irish beef industry means that external market developments largely determine Irish cattle prices. Thus, conditions in the particular overseas markets to which Irish beef and cattle are exporting play an important role in determining Irish cattle prices. The past year (2011) has been a particularly good year for the Irish cattle industry in terms of prices achieved, with prices for all of the main cattle types up considerably on 2010 levels.

The UK remains by a significant margin the largest market for Irish beef (see Figure 12). The end of the recession in the UK has led to some weak recovery in demand for beef in the UK, while the stronger economic performance of most other EU Member States has also been reflected in some recovery in beef prices during 2011. The export of beef to non-EU markets such as Turkey in 2011, which reduced the tariffs it places on imports of beef in response to large increases in internal prices in 2011, and the continuing restrictions on imports of beef into the EU from Brazil were also contributing factors to higher EU and Irish cattle prices in 2011.

**Figure 12: Irish Beef Export Markets (Volume) 2011**

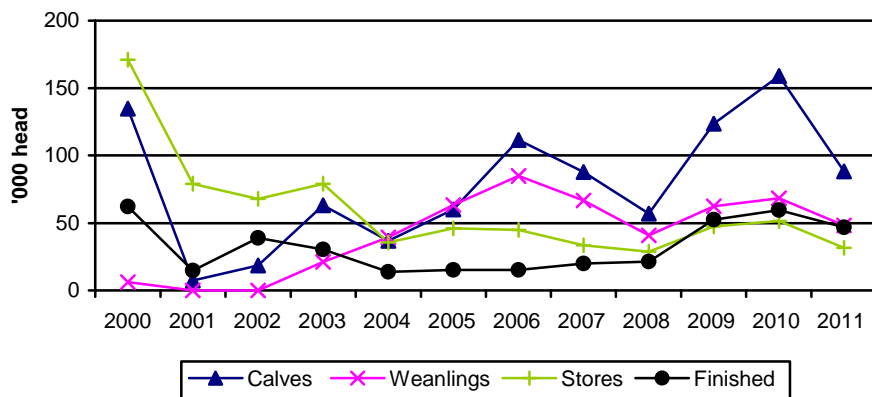


Source: Eurostat COMEXT, January to September.

Live exports for all four of the main cattle types were down in 2011 compared with their 2010 level reflecting the degree to which Irish cattle prices increased relative to prices elsewhere in the EU (See Figure 13 below). Total live exports in 2011 were almost 124,000 head lower than in 2010 with the biggest reduction being in the number of calves exported.

This reduction in live exports of cattle from Ireland is unsurprising given the buoyant nature of the Irish cattle industry in 2011.

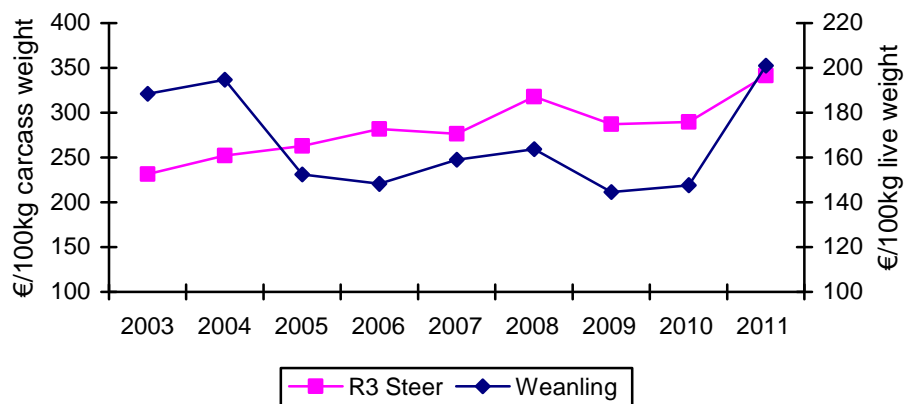
**Figure 13: Total Live Cattle Exports 2000 to 2011**



Source: Bord Bia

In 2011 Irish cattle prices increased significantly relative to 2010, Figure 14 presents average steer and weanling prices for the period 2003 to 2011. Finished cattle prices (R3 steer) increased by almost 18 percent to an average of €341 per 100kg. The price of weanlings has increased by more than 35 percent in 2011 while the price for store animals is approximately 20 percent higher in 2011 than in 2010.

**Figure 14: Irish Cattle Prices 2003 to 2011**



Source: DG Agri.

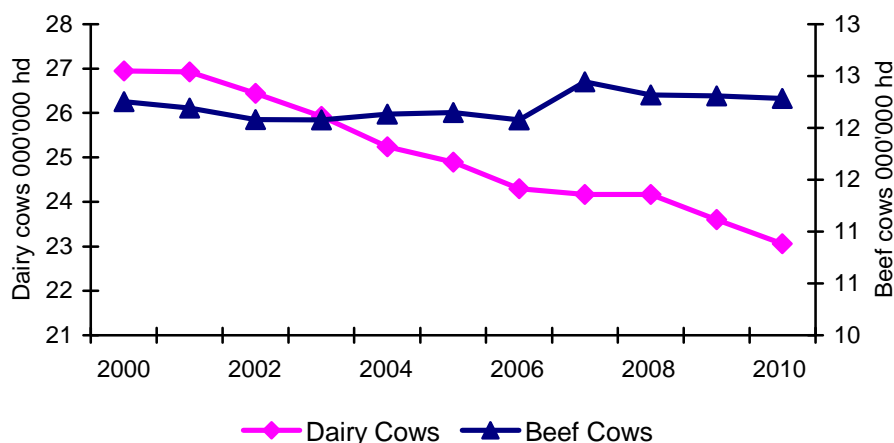


### 3.2.1 Irish and EU Cattle Supply

In the short term, indigenous EU supplies of beef are contracting due to the ongoing reductions in the EU dairy cow herds. The EU suckler cow herd has remained largely stable due to the retention of coupled direct payments. The ongoing contraction in EU supply, together with a world market that is expected to be characterised by strong and stable prices in 2012 is expected to lift EU beef prices in 2012 above the levels observed in 2011. As noted earlier uncertainty and the risk of a renewed recession within the EU and possibly globally, represents a significant downside risk to Irish and EU cattle prices.

In Figure 15, the recent trends in dairy and other cow stocks in the EU are presented. Over two-thirds of EU beef production is based on the offspring of dairy cows. To date the contraction in the dairy cow herds has exceeded that in the other (beef) cow herd, leading to a modest increase in the share of the EU cow herd that is non-dairy. Low returns from cattle production have led to some contraction in suckler cow numbers in the UK and Ireland and though the rate of contraction is expected to slow due to improved cattle prices and the introduction of measures such as the suckler cow welfare scheme, the size of the suckler cow herd is not expected to grow significantly.

**Figure 15: EU Cow Numbers (December) 2000 - 2011**



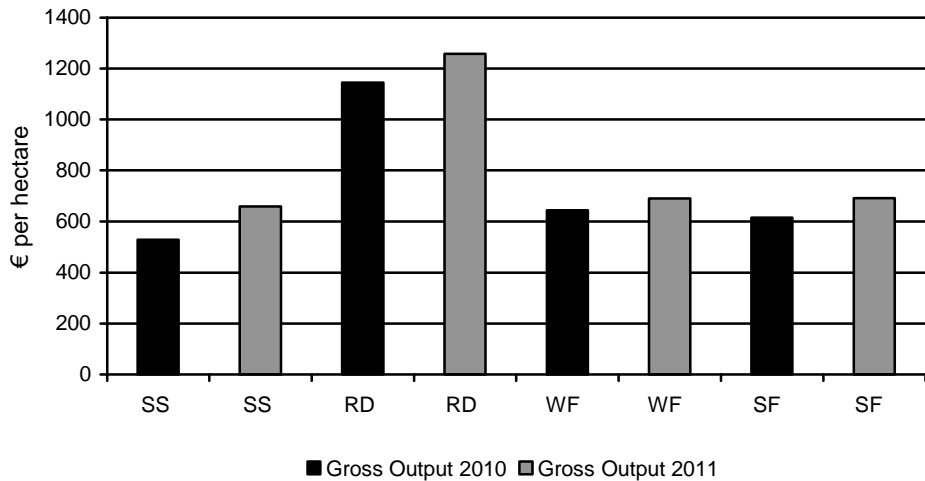
Source: Eurostat.

### 3.2 Beef System Net Margins Estimates for 2011

Average gross output on all four of the selected beef production systems is estimated to have increased in 2011. This increase is due to the substantially higher prices for cattle in 2011. Despite an increase of

approximately 17 to 18 percent in the value of finished cattle the increase in gross output on the WF and SF farms is estimated to be approximately 7 and 12 percent respectively. As shown in Table 2 the cost of younger animals purchased is a substantial (negative) component of the gross output on these farms and therefore the increase in the cost of these younger animals has eroded some of the gains from the higher prices for finished animals. In contrast, the value of purchased animals is a relatively small component of gross output on the SS farms and as a result these farms have seen a greater increase in the value of their gross output. The largest increases in output occurred on the SS farms with an increase in gross output of €129 or 24 percent (See Figure 16 below).

**Figure 16: Comparison of Actual 2010 Gross Output and Estimated 2011 Gross Output for main Cattle Systems**



Source: National Farm Survey 2010 and Authors' Own Estimates 2011.

As shown in Table 3 the cost of fertiliser and concentrate feed are both estimated to have increased substantially in 2011. In the case of the SS, RD and SF farms this is more than offset by the increase in gross output, however in the case of the WF farms the average gross margin is estimated to remain largely unchanged. The increases in the average gross margin on the SS, RD and SF farms leads to an improvement in the estimated net margin per hectare for these production systems. However a reduction in the average net margin per hectare for WF farms is estimated.

**Table 3: Estimated Gross and Net Margins in 2011 for the main Beef Systems**

	Single Suckling	Dairy Beef	Weanling to Finish	Store to Finish
<b>Gross Output ha<sup>-1</sup> 2010</b>	529	1,145	644	615
<b>Gross Output ha<sup>-1</sup> 2011</b>	658	1,258	690	691
<b>Gross Margin ha<sup>-1</sup> 2010</b>	176	305	182	181
<b>Gross Margin ha<sup>-1</sup> 2011</b>	270	327	177	211
<b>Net Margin ha<sup>-1</sup> 2010</b>	-111	-107	-167	-132
<b>Net Margin ha<sup>-1</sup> 2011</b>	-23	-94	-180	-110

Source: National Farm Survey 2010 and Authors' Own Estimates 2011.

Table 4 breaks the cattle farm population into 3 equal parts on the basis of profitability (net margin) per hectare. For the least profitable third of cattle farms the average negative net margin is estimated to have improved from -€350 per hectare to -€315 per hectare. In 2010 the average net margin on the most profitable one third of Irish cattle farms was €102 per hectare; in 2011 this is estimated to have increased to €168 per hectare.

**Table 4: Estimated Financial Performance per hectare for All Cattle Farms 2011 and Actual for 2010**

	Least Profitable	Average Profitability	Most Profitable	All
<b>Gross Output ha<sup>-1</sup> 2011</b>	721	699	926	780
<b>Direct Costs ha<sup>-1</sup> 2011</b>	615	483	461	521
<b>Gross Margin ha<sup>-1</sup> 2011</b>	106	216	465	259
<b>Overhead Costs ha<sup>-1</sup> 2011</b>	421	294	297	338
<b>Net Margin ha<sup>-1</sup> 2011</b>	-315	-78	168	-79
<b>Net Margin ha<sup>-1</sup> 2010</b>	-350	-125	102	-128

Source: National Farm Survey 2010 and Authors' Own Estimates 2011.

## **4. Outlook for 2012**

In this section we forecast the expenditure for various input items, the beef price that is expected to prevail in 2012 and the likely income of beef farmers in 2012.

### **4.1. The Outlook for Input Expenditure**

#### **4.1.1 Feedstuffs**

The 2011 harvest prices for cereals in Ireland were estimated to have increased by 11 percent compared with the 2010 harvest price (Thorne, 2011). Therefore farmers purchasing animal feed early in 2012 can expect to pay a higher price than for the corresponding period in 2011. However, it is forecasted that the cereals price in 2012 will be 12 percent lower than the 2011 cereal price. An overall decrease in cattle feed prices of 8 percent is forecast for 2012 compared with 2011. Given our forecast reduction in feed prices we expect an increase in the volume of concentrate feed fed in the region of 3 percent in 2012. Overall, this leads to a forecast reduction in concentrate feed expenditure of 5.2 percent in 2012 relative to 2011.

#### **4.1.2 Fertiliser**

The end of 2011 has seen a considerable degree of movement in global fertiliser prices, due to higher energy prices and relatively fixed fertiliser supplies. Therefore, farmers purchasing fertiliser in early 2012 can expect to pay more than they did in the corresponding period last year. An average price increase of 7 percent is forecast with no reduction in volume purchased assumed. As a result total expenditure on fertiliser is forecast to be 7 percent higher in 2012 than in 2011.

#### **4.1.3 Energy and Fuel**

In 2011 crude oil and natural gas prices increased and markets expect that oil exporting countries will adjust supply to try to maintain crude oil prices close to US \$100 in 2012. In December 2011 the average crude oil futures price for 2012 was \$100 pb or approximately €76 pb. This is equivalent to a price decrease of about 1 percent compared with 2011. Specific Irish inflationary pressures also will arise from the increased carbon levy and VAT on fuel. A weakening of the euro versus the US dollar could arise and this would add to fuel inflation, however on balance we do not expect an increase in the annual average price of farm diesel in 2012 relative to the average for 2011.

The cost of electricity is also expected to increase on 2012 levels by 5 percent relative to the 2011 level.

#### 4.1.4 Other Direct and Fixed Costs

Increases in the cost of labour and in general inflation are likely to be low given the ongoing weakness in the Irish economy. An increase in labour costs of 1 percent with no volume change is assumed. We forecast that other direct costs will increase by 1 percent, while the value of milk fed to calves is forecasted to fall by 7 percent. Other overhead (fixed) costs will remain unchanged relative to their 2011 level in 2012.

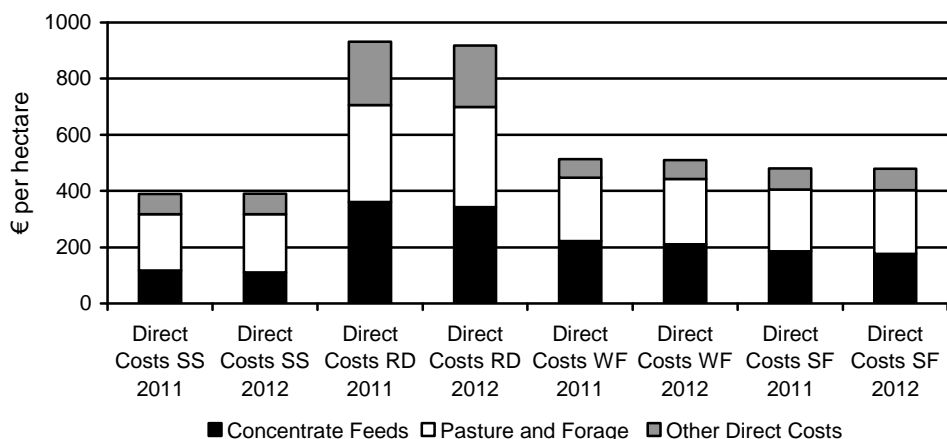
#### 4.2. The Outlook for Cattle and Beef Markets 2012

The price of Irish cattle and beef showed a significant improvement in 2011 compared with 2010. Given the uncertain and weak macroeconomic outlook for the EU further cattle price increases are not expected and so a marginal reduction in cattle prices of 2 percent is anticipated.

#### 4.3.1 The Outlook for Beef System Net Margin in 2012

Figure 17 compares the estimated and forecast average direct costs per hectare in 2011 and 2012 for the four featured beef production systems. The forecast decrease in expenditure on concentrate feed is likely to be largely offset by higher pasture and winter forage costs as a result of higher fertiliser prices. As a result, it is expected that total direct input cost expenditure will be largely unchanged on SS, WF and SF farms. However RD farms are forecast to show a reduction in total direct costs of €14 this is in part due to a reduction in the value of milk fed to calves.

**Figure 17: Comparison of Estimated Direct Costs for 2011 and Forecast Direct Costs for 2012**



Source: Authors' Own Estimates 2011 and Forecasts 2012

As can be seen in table 5 below, the average gross margin for each of the four cattle systems is forecast to decrease slightly in 2012. With little change expected in total direct costs of production, a reduction in average gross margin is forecast due to the expected reduction in cattle prices. The forecast reduction in the average gross margins ranges from €11 to €39 per hectare. As a result of reduced average gross margins and modest increases in overhead costs the average net margin earned by all four production systems is forecast to be lower than in 2011.

**Table 5: Forecast Gross and Net Margins in 2012 for the main Beef Systems**

	Single Suckling	Dairy Beef	Weanling to Finish	Store to Finish
Gross Output ha <sup>-1</sup> 2011	658	1,258	690	691
Gross Output ha <sup>-1</sup> 2012	646	1,204	676	677
Gross Margin ha <sup>-1</sup> 2011	270	327	177	211
Gross Margin ha <sup>-1</sup> 2012	256	287	166	199
Net Margin ha <sup>-1</sup> 2011	-23	-94	-180	-110
Net Margin ha <sup>-1</sup> 2012	-38	-135	-191	-123

Source: Authors' Own Estimates 2011 and Forecasts 2012

Overall the average net margin per hectare for all cattle farms in 2012 is forecast to be -€99 compared with -€79 per hectare in 2011. As shown in Table 6 the net margin on the most profitable farms is forecast to decrease from an estimated €168 per hectare in 2011 to €140 per hectare in 2012.

**Table 6: Forecast Financial Performance per hectare for All Cattle Farms in 2012 and Estimated for 2011**

	Least Profitable	Average Profitability	Most Profitable	All
Gross Output ha <sup>-1</sup> 2012	704	679	897	758
Direct Costs ha <sup>-1</sup> 2012	612	481	460	518
Gross Margin ha <sup>-1</sup> 2012	93	198	438	240
Overhead Costs ha <sup>-1</sup> 2012	422	294	297	339
Net Margin ha <sup>-1</sup> 2012	-329	-96	140	-99
Net Margin per ha <sup>-1</sup> 2011	-315	-78	168	-79

Source: Authors' Own Estimates 2011 and Forecasts 2012

## 5. Concluding Comments

In 2011 Irish cattle prices for all age categories increased substantially on their 2010 levels. However, the price for calves and weanlings increased by more than the price for older cattle. As a result the increase in gross output was smaller on those farms purchasing younger cattle. The expenditure on concentrate feed and pasture and winter forage also increased in 2011 as a result of higher concentrate feed prices and higher fertiliser prices. On average cattle net margins in 2011 improved by €49 per hectare compared with 2010, however only the top one third of farms earned a positive market based net margin.

Cattle prices are forecasted to remain strong in 2012 with only a modest decline from the high prices observed in 2011 forecast. This decline in cattle prices is likely to coincide with some relief from lower feed prices, but this will be more than offset by higher prices for fertiliser, and modest increases in other direct costs, hired labour and energy prices. Overall this is forecast to lead to a reduction in average net margins per hectare for all cattle farms in 2012, with only the top one third of cattle farms earning a positive market-based net margin from cattle production in 2012.

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# SITUATION AND OUTLOOK FOR SHEEP 2011/12

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## 1. Introduction

For this paper data from farms in the National Farm Survey (NFS) which have a sheep enterprise are used, together with data from Bord Bia, the CSO, European Commission DG Agri and Eurostat, as the basis for an analysis of the financial and technical performance of Irish sheep farms. Our estimates of enterprise margins for 2011 are based on 2010 NFS data and preliminary CSO price indices for 2011, NFS results for 2011 will not be available until mid 2012,. Forecasts of sheep enterprise margins for 2012 are based on our estimates of margins for 2011, and forecasts of input and output price changes in 2012.

We begin the paper with a brief review of the family farm income (FFI) performance of all sheep farms in 2010. This is followed by an overview of the current short term outlook for European sheep markets and for Irish lamb prices in particular. A brief overview of medium term trends in European and Irish sheep markets is then presented. A detailed assessment of the 2010 sheep margins is then presented and this is followed by estimates and forecasts of margins for the main sheep enterprises in 2011 and 2012.

National policy in relation to the sheep sector was changed in 2010 with the announcement of the *Sheep Grassland Scheme*, which will have a €54 million budget over 3 years (2010, 2011 and 2012). Under this scheme both upland and lowland sheep farmers will be eligible for support on the basis of ewe numbers declared in the annual sheep census. The NFS gross output figures for 2010 and our estimates and forecasts for 2011 and 2012 include this nationally funded coupled direct payment.

## 2. Review of the Economic Performance of Sheep Farms in 2010

Family farm income (FFI)<sup>3</sup> on those farms classified by the NFS as *mainly sheep* farms increased marginally in 2009, however in 2010, as a result of large increases in factory lamb prices and the introduction of the Sheep

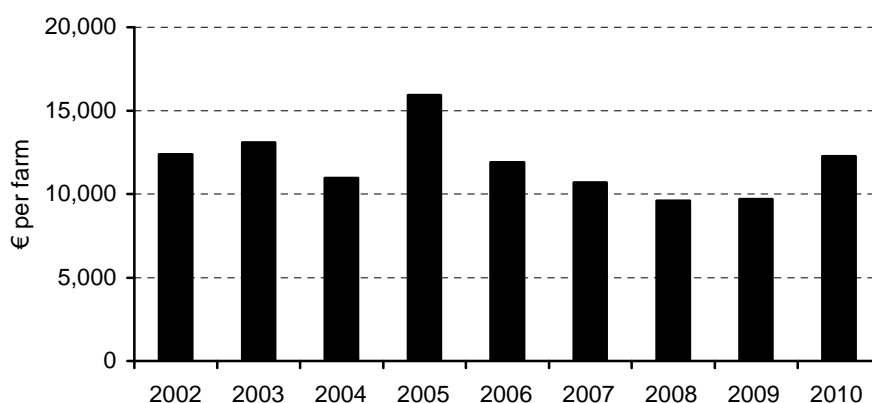
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<sup>3</sup> Family farm income represents the total return to the family labour, management and capital investment in the farm business. It is calculated as gross output less total net costs and includes direct payments/SFP (Hennessy, Moran, Kinsella and Quinlan, 2011).



Grassland Scheme family farm income on *Mainly Sheep* farms increased by 27 percent.<sup>4</sup> The average family farm income (FFI) earned on these farms for the period 2002 to 2010 are shown in Figure 1. The large increase in FFI in 2010 was principally the result of improved lamb prices and the introduction of the Sheep Grassland scheme. While direct and overhead costs on the *Mainly Sheep* farms both increased in 2010, the increase was exceeded by the increase in the value of gross output.

**Figure 1: Income on Mainly Sheep Farms in Ireland: 2002 to 2010**



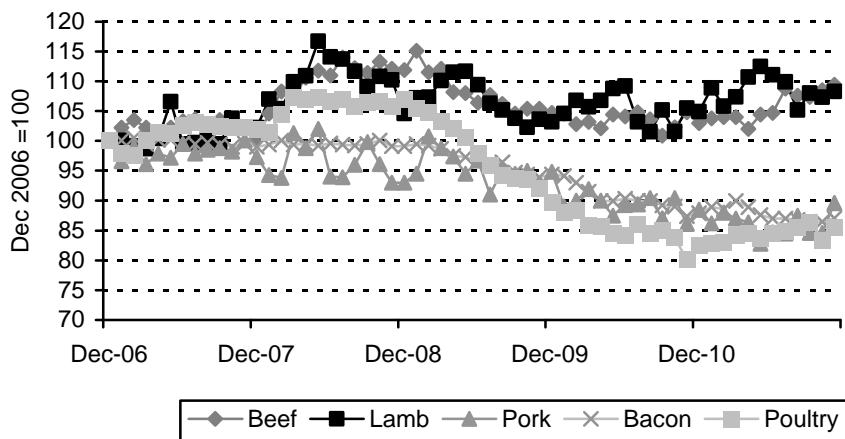
Source: Teagasc National Farm Survey (various years)

## 2.1 *Sheep Meat Markets and Price: Short run outlook*

The bulk of Irish lamb output is destined for foreign markets and in 2010 over 83 percent of Irish lamb production was exported (CSO, 2011). This extreme export dependence means that developments on Ireland's export markets determine the prices that Irish sheep farmers receive for their output. Movement in the prices of competing meats (beef, pig and poultry meat) also have an impact on lamb demand and hence the market price for lamb. In contrast to 2010 when retail lamb prices were lower than in 2009, in 2011 the retail prices of lamb in Ireland have increased. The increase in prices for lamb coincided with increased retail prices for beef during 2011 so that in the red meats market the competitive position of lamb has not deteriorated significantly. The price advantage of bacon, pork and poultry over lamb and beef continued to widen during 2011.

<sup>4</sup> The *Mainly Sheep* farm category within the NFS comprises farms where the sheep enterprise was the dominant enterprise in the farm's gross margin. These farms are dominated by farms operating hill sheep enterprises.

**Figure 2: Irish Retail Meat Prices (December 2006 – November 2011)**

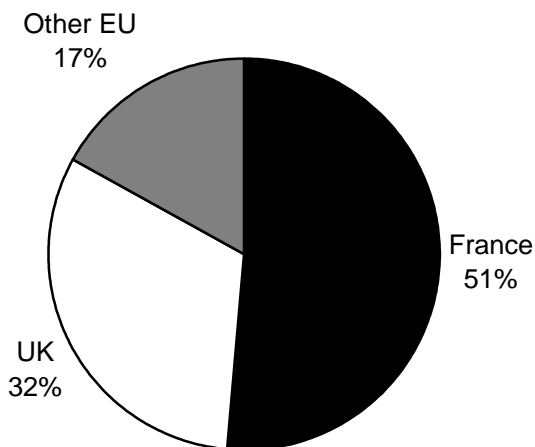


Source: CSO Consumer Price Index by Detailed Sub Indices, Month and Statistic (CPM09).

Though continental EU market for Irish lamb have a strong impact on the prices received by Irish producers, with the majority of Irish lamb exports destined for euro-zone markets, the UK market remains important and in 2011 accounted for 32 percent of Irish sheep meat exports, see Figure 3. On EU markets Irish lamb competes with lamb produced in other EU Member States as well as lamb produced in New Zealand and Australia. Aggregate EU demand for lamb has been largely stable in recent years with declines in EU per capita consumption being offset by increases in population. The increasingly negative outlook for the EU macroeconomy means that the demand for lamb may contract somewhat in 2012, this combined with developments in supply, both within the EU and the world market will determine the short-run outlook for European (and Irish) lamb prices.

The short run supply story for sheep meat within the EU is one of stabilisation and perhaps modest recovery after a number of years of contraction. In response to improved output prices and profit levels breeding numbers in the UK have increased, while inventories of ewes less than two year of age in Ireland have expanded strongly. This stabilisation and modest growth in breeding stocks was reflected in an increase in the total volume of sheep meat produced within the EU in 2011. Total production of sheep meat in the EU for the year to September 2011 was 3 percent higher than in same period in 2010.

**Figure 3: Irish Sheep Meat Exports (Volume) by Destination in 2011**

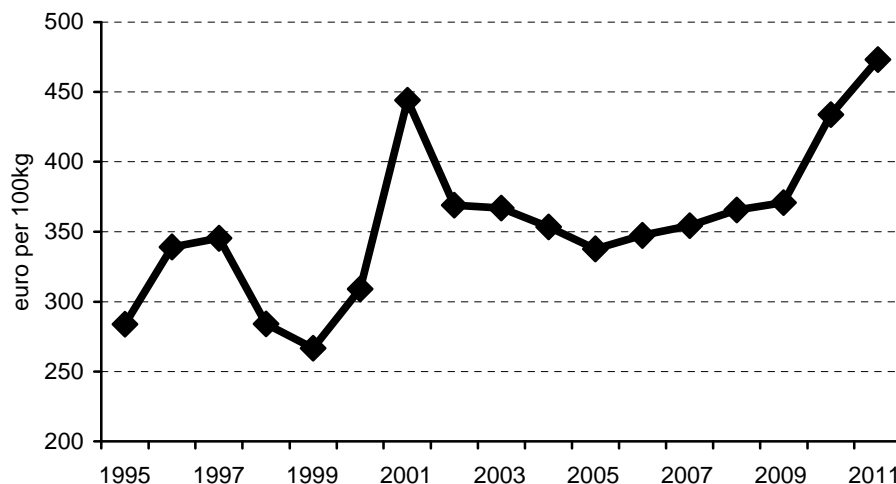


Source: Eurostat COMTRADE database (Eurostat, 2011b)

The indigenous production of lamb in the EU in 2012 will largely be a function of the 2011 ending inventory of breeding ewes. Overall EU breeding inventories in 2011 are likely to be lower than in 2010. The UK sheep breeding flock in June 2011 increased by almost 1 percent compared with June 2010 (DEFRA, 2011). The French ewe flock in December 2010 was only marginally lower than in 2009 (Eurostat, 2011a). Despite lower ewe numbers EU sheep meat production in 2011 is ahead of levels of production in 2010. With largely stable breeding numbers in the EU sheep meat production in 2012 is likely to be close to or slightly higher than in 2011.

*Beef and Lamb New Zealand* (B&LNZ, 2011) and the New Zealand Ministry of Agriculture and Forestry (MAF, 2011) expect the New Zealand lamb crop in 2011 and lamb shipments in 2012 to grow by 5 percent from levels observed 2011 and that New Zealand's lamb EU Tariff Rate Quota (TRQ) will be filled in 2012. Australian lamb exports are also expected to increase in 2012, as a result of positive prices and stock rebuilding in 2010/11. ABARES is forecasting that Australian lamb slaughter in 2011/12 will increase by 13 percent (ABARES, 2011). Thus the tight supply situation that has driven the increases in international sheep prices in recent years is likely to ease in 2012 as producers have responded to improved profitability by increasing production.

**Figure 4: Irish Lamb Price, 1995 – 2011**



*Source: European Commission DG AGRI and Bord Bia.*

Lamb prices paid at export licensed abattoirs in Ireland have increased year on year since 2005 (see figure 4). The trend in Irish lamb prices since 1995 is shown in Figure 5. The average weekly price in 2011 (when weighted by weekly throughput at export licensed abattoirs) is estimated to have been 10 percent higher than for the same period in 2010.

The combination of a relatively stable indigenous EU supply of lamb and expanding southern hemisphere lamb exports, with stable to contracting EU per capita demand for lamb, suggests that prices of lamb on European markets in 2012 could decline from the very high levels experienced in 2011. For 2012 we forecast that lamb prices will be 5 percent lower than in 2011.

## **2.2 Sheep and Flock Numbers**

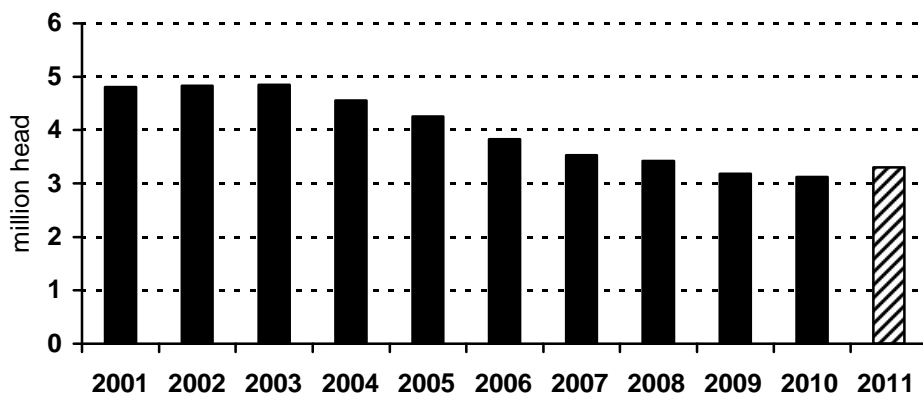
The decline in the number of sheep flocks in Ireland that has been ongoing in recent years was arrested in 2009 and in 2010 the number of registered flocks was more or less equal to that in 2009. The number of sheep flocks recorded by the Department of Agriculture, Food and the Marine (DAFM) in the 2010 Sheep and Goat Census was 32,176 (DAFM, 2011).

The national average flock size had decreased steadily since the early 1990s. In 2005 the average flock size was 108 sheep; by 2009 this had

declined to 95 sheep per flock. In 2010 there was a small increase to 97 sheep per flock. Of the 32,176 flocks in Ireland, approximately 45 percent have less than 50 sheep. The number of large flocks, i.e. those with greater than 200 sheep was 12 percent of the total in 2010. Despite the decline in the number of sheep flocks in Ireland there has not been a significant consolidation in the structure of the sheep sector, with the proportion of large flocks remaining largely unchanged.

Figure 5 graphs the recent trends in sheep numbers in Ireland. We expect that ending numbers of sheep in 2011 will be up to 6 percent higher than in 2010. The volume of production (slaughter plus live exports) in 2011 is estimated to be marginally higher than in 2010. The stabilization in total disposals is largely a result of higher slaughterings offset somewhat by a reduction in live exports.

**Figure 5: Total Irish Sheep Numbers (December) 2001-2011**



Source: CSO December Livestock Survey and Authors' own estimates for 2011.

### **2.3 Medium Term prospects for the Irish sheep sector**

Over the next 10 years the economic outlook for the Irish and EU lamb sectors, in the absence of any significant changes in agricultural policy and agricultural trade policy is likely to be stable. However, we know that there will be changes to policy. Over the next 10 years there could be a WTO agreement or a bilateral agreement between the EU and Mercosur that liberalises EU agricultural trade policy by lowering the tariff barriers that currently protect EU agricultural markets. Any such trade agreement would negatively affect Irish lamb prices. While the prospects of a WTO agreement are currently remote, European agricultural policy is set for change from 2014. The current European Commission proposals on CAP

reform (European Commission, 2011) are likely to have a greater impact on family farm income than on enterprise margins since they largely involve changes to the way in which decoupled direct payments budgets funded under Pillar I of the CAP are distributed amongst Irish farmers.

### 3. *Sheep Margins in 2010*

Mid-season lamb is the predominant lowland sheep system in Ireland. Changes in the value of output, costs and gross margin per hectare for this system are shown in Table 1. The value of gross output on mid-season lamb enterprises in 2010 increased dramatically due to the large increase in lamb prices in 2010 over those that prevailed in 2009. Total direct costs per hectare on the average mid-season lamb enterprise were largely unchanged in 2010 when compared with 2009. This stability was largely due to lower pasture and other direct costs that largely offset increased expenditure on concentrates and winter forage.

**Table 1: Mid-Season Lamb Output, Direct Costs, Gross Margin and Technical Performance in 2009 and 2010**

	2009	2010
	€/ha	
<b>Gross output</b>	730	830
<i>Coupled Direct Payments</i>	0	24
<b>Direct Costs</b>	370	372
<i>Concentrates</i>	149	159
<i>Pasture costs</i>	76	67
<i>Winter Forage costs</i>	37	43
<i>Other direct costs</i>	107	103
<b>Gross Margin</b>	360	458
Ewes/ha	7.69	7.37
Lambs per ewe	1.33	1.26
Lamb Carcass (kg)/ha	204	186

*Source: National Farm Survey (Various Years)*

The large differences in the profitability of sheep farms operating the mid-season lamb system, have been noted previously (Hanrahan and Kinsella, 2011). In 2010 despite the large improvement in output prices these differences continued. For comparison purposes, in Table 2 mid-season lowland lamb enterprises are ranked on the basis of gross margin per hectare, and grouped into three categories, the top 25 percent, the fifty percent and the bottom 25 percent of farms. The average levels of output,

direct costs and gross margin per hectare across these three groups and indicators of technical performance can be compared.

**Table 2: Mid-Season Lamb Output, Costs, Margins and Technical Performance in 2010 by gross margin grouping**

	Bottom 1/4	Middle 1/2	Top 1/4
	€/ha		
<b>Gross Output</b>	503	842	1,413
<b>Direct Costs</b>	393	356	397
Concentrates	183	144	172
Pasture	65	65	76
Winter Forage	46	41	42
Other Direct Costs	99	105	106
<b>Gross Margin</b>	110	486	1,016
Ewe / ha	5.85	7.36	10.34
Lambs /ewe	1.14	1.27	1.36
Lamb carcass (kg)/ha	134	187	281
Dir. costs €/kg carcass	2.94	1.90	1.41

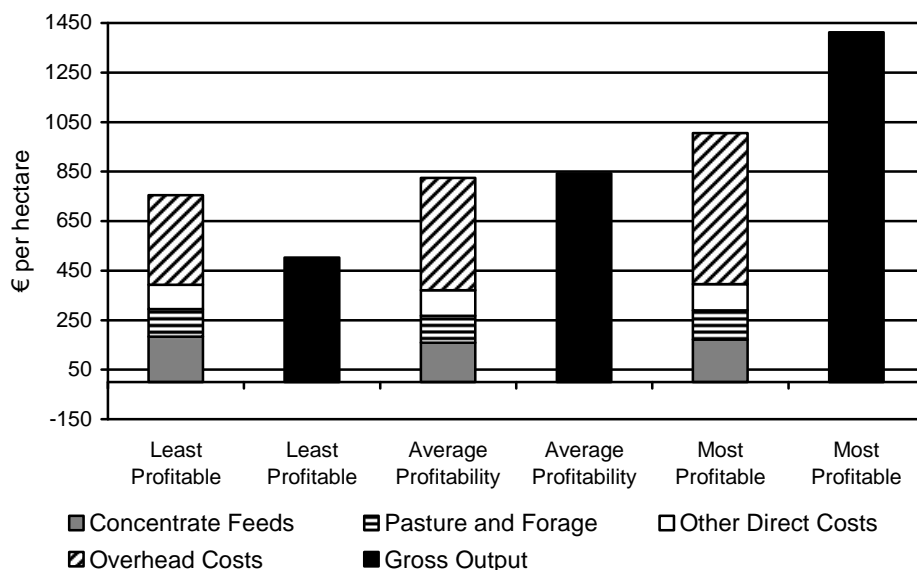
*2010 National Farm Survey (2011); enterprises ranked on a gross margin per hectare basis. Note: In calculating the volume of lamb carcass output per hectare an average carcass weight of 20 kg has been used (Hanrahan, 2006).*

The top group earned an average gross margin of €1,016 per hectare in 2010; farms in the bottom group earned an average gross margin of only €110 per hectare. This means that the top producers earned, on average, over 9 times more per hectare than their counterparts in the bottom group.

The large differences in gross margin earned per hectare reflect differences in intensity of production but also differences in direct costs per hectare (see Figure 2). Total direct costs per hectare are greatest on the group with the highest level of profitability reflecting the higher stocking rate on these farms. The level of direct costs per hectare on the bottom 25 percent of farms is more than 10 percent higher than on the middle group of farms.

If costs of production per kilo of lamb carcass produced are compared the impact of different levels of production intensity is accounted for. Direct costs of production per kilo of lamb carcass produced on the bottom 25 percent of farms are more than double the costs per kilo incurred on the top 25 percent of farms.

**Figure 6: Variation in Gross Output and Total Production Costs on Mid-Season Lamb farms in 2010**



Source: 2010 National Farm Survey Data (2011)

As is clear from Table 2, the large differences between the values of output per hectare between the three groups of farms are in due in large part to differences in weaning and stocking rates. A high weaning and stocking rate and control of costs per hectare are essential in achieving higher returns. Higher levels of technical performance as reflected in the average carcass output per hectare of 281 kilos on the top 25 percent of farms versus 134 kilos on the bottom 25 percent of farms is critical to achieving improved margins and maximising the return from improved lamb prices.

#### 4. Estimated Sheep Gross Margins 2011

To obtain an estimate of farm profitability for 2011, it is necessary to estimate the volume and price of inputs likely to have been used in producing lambs, as well the volume and value of the lamb and other output produced. We have assumed that stocking rates per hectare and weaning rates in 2011 are unchanged from the 2010 levels. Possible future short to medium term developments in the sheep markets and prices were discussed earlier in the paper and will also affect the value of output farmers sell off of the farm.

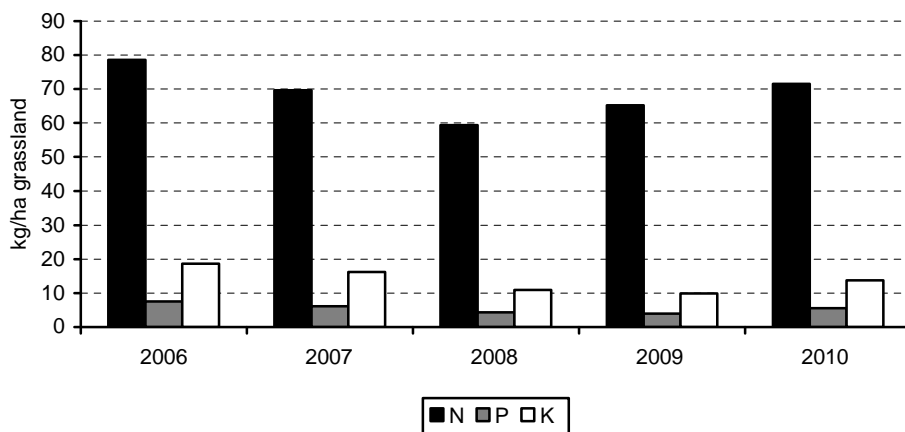


As noted earlier, the sheep and lamb market in 2011 was characterised by reduced supplies of sheep meat imports on the EU market and slightly higher domestic production, when combined with relatively stable demand for lamb in the EU, led to increased Irish and EU lamb prices. Irish lamb prices in 2011 were over 10 percent higher than in 2010. The value of output per hectare for the mid-season lamb system in 2011 is estimated to have increased as a result of higher market prices.

Given assumptions of unchanged stocking and weaning rates, the evolution of direct costs per hectare determines the extent to which the increased gross output in 2011 translates into higher gross margins. The main costs for sheep farms are purchased feed, winter forage and pasture (fertiliser) costs.

Purchased feeds typically account for approximately 40 percent of total direct input expenditure on the average mid-season lowland lamb system. Over the course of 2011 purchased feeds have increased in price and there is evidence from Department of Agriculture data that total sales of sheep feed decreased in 2011 relative to 2010. Given the increase in the price of feed, and the evidence for a decrease in volumes fed, expenditure on concentrates is estimated to have increased by 3.5 percent in 2011. It should be noted that levels of concentrate use and stocking rates per hectare are related. Other things equal lower stocking rates will lead to lower concentrate use. In our 2011 estimates we have assumed that stocking rates are unchanged relative to 2010.

**Figure 7: Whole Farm Fertiliser Use per Hectare: Farms with a Mid-Season Lamb Enterprise 2006 - 2010**



Source: National Farm Survey (Various Years)

Pasture and forage costs typically account for approximately 30 percent of total direct costs on the mid-season lowland lamb system. In 2010 the fertiliser applications on farms with sheep enterprises increased in response to decreases in the price per tonne of fertilisers relative to 2009 levels. The applications of nitrogen in 2010 were almost 10 percent higher than in 2009, while applications of phosphorous and potassium increased by almost 40 percent in response to lower P and K prices. With stocking rates slightly lower in 2010 than in 2009 the increase in fertiliser application rates is primarily due to the decline in the average prices of fertilisers.

Fertiliser prices have risen over the course of 2011, with prices estimated to be over 22 percent higher than in 2010 (CSO, 2011). In 2011 higher fertiliser prices are estimated to have led to a reduction in the level of fertiliser expenditure by Irish sheep farmers. Given our assumption that stocking rates on sheep farms will remain at their 2010 level in 2011, the volume of fertiliser applied per hectare in 2011 is estimated to decrease by 5 percent. As a result, expenditure on pasture and forage is estimated to increase by approximately 12 percent on sheep enterprises.

Higher direct costs, combined with the increase in the value of market gross output (inclusive of the Sheep Grassland Payment) are estimated to have led to a improvement of 12 percent in the gross margin earned from lowland mid-season lamb enterprise in 2011 (see Table 3).

**Table 3: Mid-Season Lamb Enterprise Gross Margin, 2009 – 2011**

	2009	2010	2011 <sup>1</sup>
	€/ha		
Total Direct Costs	370	372	398
Concentrates	149	159	167
Pasture	76	67	77
Winter Forage	37	43	49
Other Direct Costs	107	103	104
Gross Output	730	830	910
Gross Margin	360	458	512

Source: National Farm Survey (Various Years)

<sup>1</sup>Estimate

## 5. The Outlook for Sheep Enterprise Gross Margin in 2012

The forecast expansion of New Zealand and Australian lamb exports, the stabilisation of production of sheep meat in the EU, together with a possibly contracting demand for lamb in the EU as a result of the ongoing EU debt crisis mean that the price of lamb on European markets in 2012 is likely to be 5 percent below the levels observed in 2011.

The outlook for input prices in 2011 from the perspective of Irish sheep farmers is mixed. Prices of concentrates are forecast to decline in 2012 however the costs of fertilisers are forecast to increase.

Concentrate costs are the largest direct cost item on all sheep systems and prices are forecast to decrease by 6 percent in 2012 relative to 2011. The price of fertiliser in 2012 is forecast to increase by 7 percent relative to 2011. Fuel costs are forecast to be largely stable.

Due to higher fertiliser prices, application rates are forecast to decrease marginally. This leads to a forecast increase of almost 6 percent in expenditure on fertiliser in 2012. With prices of feed forecast to decrease in 2012 overall feed use per hectare is expected to increase marginally, overall expenditure on feed in 2012 is forecast to increase by 5 percent.

**Table 4: Mid-Season Lamb Enterprise Gross Margins, 2009 – 2012**

	2009	2010	2011 <sup>1</sup>	2012 <sup>2</sup>
	€/ha			
Total Direct Costs	370	372	398	405
Concentrates	149	159	167	159
Pasture	76	67	77	81
Winter Forage	37	43	49	52
Other Direct Costs	107	103	104	104
Gross Output	730	830	910	866
Gross Margin	360	458	512	470

Source: National Farm Survey (Various Years)

<sup>1</sup>Estimate, <sup>2</sup>Forecast

Table 4 summarises our forecast of output, costs and margins for the mid-season lamb enterprise for 2012. Given the negative outlook for lamb prices in 2012 relative to 2011 and the relatively moderate increase in input costs forecast, gross margins earned from sheep farming are set to decline from the levels estimated for 2011. The gross margin per ewe for mid-season lamb system in 2011 is forecast to decrease 8 percent to €470.

## **6. Concluding Comments**

In the post decoupling era the bottom line for sheep farmers has been determined by the price of lamb relative to the costs of production and by the technical performance and intensity of production of their enterprises. The analysis of margins earned on farms operating a mid-season lamb system in this paper highlights the importance of high weaning rates and high stocking rates in achieving improved returns per hectare. In 2010 gross margins per hectare were higher on farms that were able to increase stocking and weaning rates and control costs.

The average gross margin earned by mid-season lamb producers in 2011 is estimated to have increased relative to that earned in 2010. The estimated improvement of 12 percent in gross margin on the mid-season lamb enterprise is based on lamb prices in 2011 that were on average 10 percent higher than in 2010 and on the receipt of the Sheep Grassland Scheme payment.

The tentative stabilisation of indigenous EU production of lamb and sheep meat and the possibly negative outlook for consumer demand given the ongoing macroeconomic crisis in the EU means that the large improvements in prices seen in 2010 and 2011 are unlikely to be repeated and will probably be partially reversed. Output prices in 2011 are likely to be a few percent down on those in 2011 and when combined with some increase in direct costs per hectare in 2012, we forecast that margins on sheep enterprises will decline from the levels estimated for 2011. Underlying the estimates for 2011 (and our forecast for 2012) are conservative assumptions concerning the development of stocking rates per hectare and weaning rates per ewe. Further reductions in the intensity of lamb production per hectare will further reduce earnings per hectare.

Over the medium term considerable policy uncertainty remains. CAP reform, the currently stalled WTO Doha Round of trade negotiations, negotiations with Mercosur on a bilateral trade agreement and the impact of climate change policy could all affect the profitability of Irish sheep farming. The ongoing CAP reform process could reduce the Single Farm Payment cheques received by some farmers and increase those received by others, though it is unlikely to negatively affect the market based gross margins earned on sheep enterprises. A WTO reform or a bilateral trade reform with the Mercosur trade block remain possibilities and would, other things remaining equal, reduce the market price of lamb in EU.

The improvement of margins estimated to have been earned on Irish sheep enterprises in 2011 are due to a combination of market price and cost developments and the introduction of the sheep grassland scheme. This

improvement in profitability followed an even larger improvement in 2010. The outlook for 2012 is not positive. Further improvements in gross margins based on increased output prices are unlikely. The policy based element of the improvement in the economic fortunes of the Irish sheep sector, though welcomed by sheep farmers, is likely to be transitory. The Grassland Sheep scheme is based on unused Single Farm Payment funds. The availability of such funds in the aftermath of the 2013 CAP reform is uncertain and the Irish Government is unlikely to be able to support the continuation of a scheme from national exchequer funds. In 2012 improved margin per hectare will arise from tight control of costs of production and improvements in technical performance and intensity of production. Sheep producers should continue to focus on the market based component of their profits and particularly on that part of their profit equation that they can control.

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**Table A1: Production Costs, Output, Gross and Net Margin on Mid-Season Lamb Sheep Farms in 2010 (€/ha)**

	Least Profitable (25%)	Average Profitability (50%)	Most Profitable (25%)
Concentrate Feeds	183	144	172
Pasture and Forage	111	107	118
Other Direct Costs	99	105	106
Total Direct Costs	393	356	397
Gross Output	503	842	1413
Gross Margin	110	486	1016

Source: 2010 National Farm Survey Data

# SITUATION AND OUTLOOK FOR PIGS 2011/12

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## 1. Introduction

Over the last two years the Irish pig industry has experienced the lowest profitability in more than a generation. A rapid escalation in cereal prices in 2010-2011, including the largest single month's rise in wheat price since 1973, resulted in the composite price of pig feed reaching a twenty year high. Unfortunately the market price for pigmeat did not rise in tandem due to a plentiful supply and a weak export market. This resulted in a depressed farm-gate pig price for much of 2010 and into 2011. The effect of this cost squeeze has seen the industry suffer a significant loss over the last two years. The industry has recently returned to a marginally profitable position but will require a significant and sustained period of profitability to recoup the accumulated losses it has sustained.

## 2. Irish Pig Production Costs

The cost of producing pigmeat in Ireland can be segregated into feed cost and non-feed cost. Feed constitutes 70 percent of the total cost of producing a pig with the non-feed inputs contributing the remaining 30 percent. The largest volatility over the last two years has concerned the feed cost input.

### 2.1 Irish Pig Feed Costs

The Irish pig industry utilises a relatively small selection of feed ingredients, principally wheat, barley, and soyameal with small inclusions of maize, rapeseed and assorted oils. Ireland does not grow some of these ingredients and is not self-sufficient in the remaining ingredients, therefore the pig industry must import a significant volume of its feed ingredients. This leaves the industry very exposed to fluctuations in the supply and price of internationally traded feed ingredients. This exposure was demonstrated when wheat production in the Black Sea region (Russia, Ukraine, Kazakhstan) contracted due to a serious drought in 2010. This caused a severe reduction in wheat yields and the affected countries responded by closing their borders to wheat exports. Table 1 presents exports of wheat from the Black Sea region for the period 2009/10 to 2011/12.



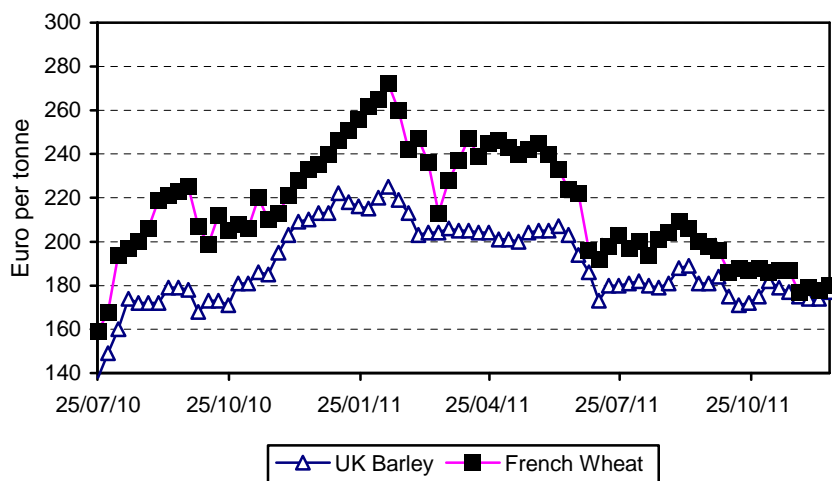
**Table 1: Wheat Exports from the Black Sea region**

Country	Year		
	2009/10	2010/11	2011/12
	million tonnes		
Russia	18.5	3.4	18.2
Ukraine	9.2	3.8	6.4
Kazakhstan	4.4	2.1	6.4
<b>Total</b>	<b>32.1</b>	<b>9.3</b>	<b>31</b>

Source: Strategie grains

The reduction in Black Sea exports caused an immediate escalation in wheat and barley ingredients prices in late 2010 and early 2011 from Ireland’s principal suppliers, France and the UK. Figure 1 shows prices for UK barley and French wheat over the 18 month period to the end of 2011

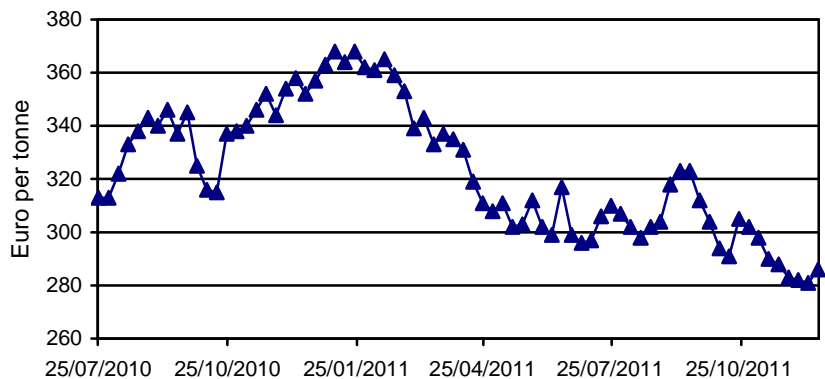
**Figure 1: Feed Ingredients weekly prices July 10 to December 2011**



Source: IFIP & HGCA

The scarcity of wheat as a protein source also increased the rate of substitution to soyabeans with a resultant price escalation in the price of soyabeans in late 2010 and early 2011. The subsequent bumper South American soyabean harvest in spring 2011 eased the pressure of soyabean supply leading to a corresponding drop in price. Figure 1 shows prices for soyabeans over the 18 month period to the end of 2011.

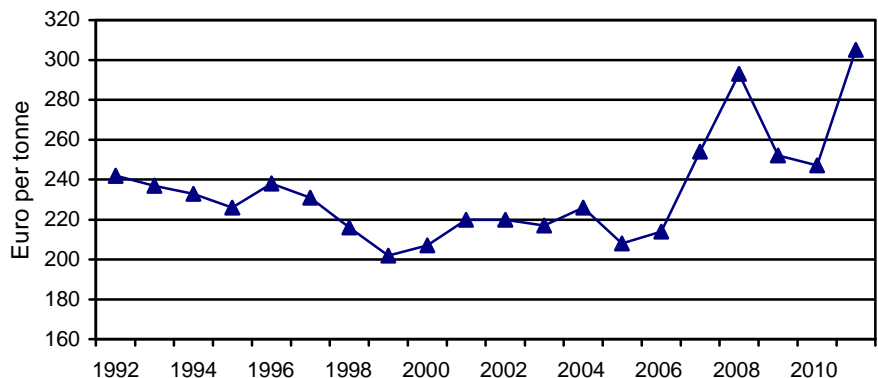
**Figure 2: Soyabean weekly prices July 2010 to December 2011**



Source: IFIP

The price spike for the main pig feed ingredients from August 2010 onwards led to the Irish composite pig feed price increasing to its highest level in over twenty years. Annual Irish pig feed prices are shown in Figure 3.

**Figure 3: Irish composite pig feed price from 1992 – 2011**



Source: Teagasc Pig Department

The composite compound feed price increased by €24 per tonne from January to a peak in May 2011. The price then stabilised with the arrival of cheaper South American soyabeans and later eased with the onset of the northern hemisphere grain harvest in July 2011. Monthly prices for pig feed in 2011 are shown in Table 2.

**Table 2: Purchased Irish Compound Feed Prices in 2011**

<b>Month</b>	<b>Composite Feed Price € per Ton</b>	<b>Feed Cost per kg Dwt Cent</b>
January	292	108
February	300	111
March	301	111
April	314	116
May	316	116
June	315	116
July	315	116
August	308	114
September	304	112
October	300	111
November	296	109
December	296	109
<b>Average</b>	<b>305</b>	<b>112</b>

Source: Teagasc Pig Department

The annualised feed cost per kg dead weight of 112 cent is significantly higher than in 2010 (93 cent) and 2009 (94 cents). The increased feed cost during 2011 caused serious cashflow difficulties for producers. The traditional length of feed credit within the industry (3 – 4 months) indicates that many producers are only now seeing the reduced feed cost being reflected in their cashflow accounts.

## **2.2 Non-feed costs in Irish Pig Production in 2010**

The non-feed costs can be partitioned into *Common Costs* and *Herd Specific Costs*. The common costs apply on all units and represent the largest component of non-feed costs. The data quoted for Irish industry is collected from herds using the Teagasc Pigsys herd recording system which records, analyses and benchmarks herd productivity and financial performance. The costs quoted are based on 2010 data which is the most recent analysis of annualised costs available. Common costs are itemised in Table 3.

**Table 3: Common Costs in Pigsys Recorded Herds**

Cost Item	2010	2006-2010
	cent per kg	
<b>Healthcare</b>	5.2	5.2
<b>Heat, Power Light</b>	4.3	4.3
<b>Transport</b>	1.0	1.0
<b>AI</b>	1.6	1.5
<b>Manure</b>	2.3	2.4
<b>Labour/Management</b>	13.6	14.7
<b>Repairs</b>	2.3	2.4
<b>Phone/Office</b>	0.6	0.5
<b>Environment</b>	1.1	0.8
<b>Insurance</b>	0.6	0.7
<b>Stock Depreciation</b>	0.3	0.4
<b>Miscellaneous</b>	1.6	1.9
<b>Total</b>	<b>34.5</b>	<b>35.9</b>

Source: Teagasc Pigsys Report 2011

The common costs in 2010 were 1.4 cent lower when compared to the five year average. A larger reduction may have been anticipated in 2010 but the industry had previously experienced low profits margins in 2009 which resulted in a four cent reduction in common costs. This low cost base was further reduced in 2010 primarily by reducing the labour/management input cost by 1.1 cent. This reflected the tightening financial situation in the latter part of 2010.

### 2.3 Herd Specific Costs in Irish Pig Production in 2010

These costs include interest payments and building depreciation and vary greatly from unit to unit depending on the age of the unit and the level of continuous capital investment undertaken in the business. Herd specific costs are itemised in Table 4.

**Table 4: Herd Specific Costs in Pigsys recorded herds**

Cost Item	2010	2006-2010
	cent per kg	
<b>Interest</b>	1.7	2.8
<b>Building Depreciation</b>	3.8	4.6
<b>Total</b>	<b>5.5</b>	<b>7.4</b>

Source: Teagasc Pigsys Report 2011

The reduction in interest and depreciation costs in 2010 reflects the poor profitability of the industry in the preceding years which therefore limited capital investment.

### 2.3. Total Cost of Irish Pig Production in 2011

The estimated cost of production in 2011 (based on 2010 non-feed costs and 2011 feed costs) was 152 cent per kilogram dead-weight for pigs delivered to the slaughter plant. The level of this cost varied from a low of 148 cent/dwt in January 2011 to a high of 156 cent/dwt in May 2011. This variation was principally due to the fluctuating feed cost.

### 3. Irish Pig Prices in 2011

The estimated average pig price in 2011 was 151 cent which was 6 cent above the five year average (2006-2011) of 145 cent. Monthly Irish pig prices are shown in Table 5.

**Table 5: Monthly Irish Pig Price in 2011**

<b>Month</b>	<b>Pig Price</b>
	cent per kg dead wt
January	140
February	142
March	145
April	149
May	155
June	157
July	157
August	156
September	157
October	154
November	154
December	154
<b>Average</b>	<b>151</b>

Source: Teagasc Pig Department

The higher Irish pig price in 2011 was a combination of a more vibrant export market outside the EU and a response to the higher cost of production. The higher pig price was also reflected across other European Union countries as shown by the survey results in Table 6. This survey of

the principal European pig prices revealed annual increases of between 9 percent and 16 percent between 2010 and 2011.

**Table 6: European Pig Prices January to November 2010 and 2011**

	<b>2010</b>	<b>2011</b>	
<b>Country</b>	<b>Jan - Nov</b>	<b>Jan - Nov</b>	<b>Change</b>
	Euro per kg	Euro per kg	%
<b>Netherlands Monfoort</b>	1.348	1.463	9%
<b>Denmark 61%</b>	1.243	1.346	8%
<b>Germany ZMP 56%</b>	1.404	1.514	8%
<b>Spain Llerida vif</b>	1.119	1.229	10%
<b>Italy vif Modena</b>	1.126	1.31	16%
<b>France MPB 56%</b>	1.147	1.307	14%

Source: MPB

#### **4. Profitability of Irish Pig Production in 2011**

The margin over feed costs per kg deadweight in 2011 has continued the pattern of recent years by fluctuating widely as illustrated in Table 7.

**Table 7: Average Margin over Feed Costs in Herds Purchasing Compound Feed from 2006-2011**

<b>Year</b>	<b>Pig Price (delivered)</b>	<b>Feed Cost</b>	<b>Margin over Feed</b>
	Cent per kg		
<b>2006</b>	147	84	63
<b>2007</b>	139	97	42
<b>2008</b>	152	112	40
<b>2009</b>	145	94	51
<b>2010</b>	140	93	47
<b>2011</b>	151	112	39

Source: Teagasc Pig Department

When the 2011 margin over feed is compared to the average margin over feed of the last 5, 10, 15 and 20 years (see Table 8) the difficult trading conditions and low profitability of the recent years are clear.

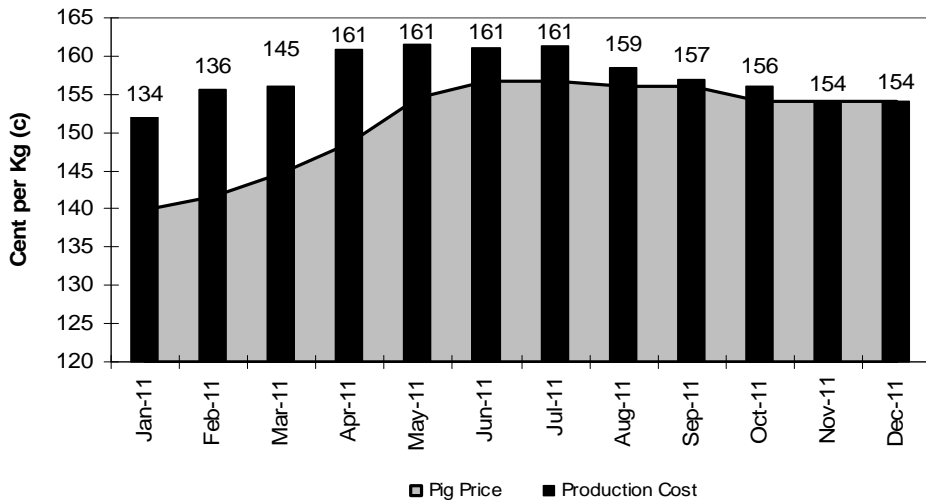
**Table 8: Margin Over Feed in 2011 Compared to the 5, 10 15 and 20 year average**

	Margin Over Feed	% Diff.
	cent per kg/dwt	
<b>2011</b>	39	-
<b>5 Yr average</b>	44	-11
<b>10 yr average</b>	48	-19
<b>15 Yr average</b>	47	-17
<b>20 Yr average</b>	48	-19

Source: Teagasc Pig Development Department

When an average figure of 45 cent per kg (estimated by the author as a requirement to meet production costs including financial repayments) is added to the feed costs incurred during 2011 it is clear that an operating margin deficit existed in Irish pig production for much of 2011. Figure 4 shows the pig price, productions cost and operating margin in 2011

**Figure 4: Estimate of Pig Price, Production Costs and Operating Margin in 2011**



Source: Teagasc Pig Development Department

## 5. Irish Pig and Sow numbers in 2011

The latest European census (June 2011) reveals a decrease in the total pig population of 0.4 percent when compared to the June 2010 census with the largest reduction of 0.5 percent in the 80-100 kg category reflecting the economic reality of feeding pigs to heavy weights given the current high feed cost environment. The latest Teagasc sow survey of commercial pig production units in 2011 revealed a slight increase in sow numbers when compared to the previous survey. Irish sow numbers are shown in Table 9.

**Table 9: Sow Numbers in Commercial Pig Herds 2001-2011**

Year	Sow Numbers
	000 head
2001	166.1
2003	160.4
2005	154.3
2007	153.0
2009	148.7
2011	150.0

Source: Teagasc Pig Development Department

As this survey was completed in January 2011 it does not reflect the difficult trading conditions suffered in the latter part of 2011. However anecdotal evidence suggests that there has been a slight decrease in the national sow herd during 2011. This assertion appears to be supported by the increased number of sows culled in Irish export plants in 2011 as illustrated in Table 10.

**Table 10: Sow Culling in Irish Export Plants in 2011**

	2010	2011	%
	000 head		
<b>Sows Culled</b>	82	88	+7.3

Source: DAFM

Examination of production trends in a selection of the key EU pig producing countries (Table 11) shows a combined decrease in their sow herd of 3.7 percent from 2010. This is in addition to the 1.1 percent decrease from 2009-2010.



**Table 11: Sow Numbers in Selected EU states**

Country	2009	2010	2011	Diff %
	million head			
Germany	2,067	2,004	1,981	-1.1
Netherlands	980	980	975	-0.5
Denmark	1,107	1,081	1,047	-3.1
France	1,063	1,036	1,027	-0.9
Spain	2,298	2,281	2,192	-3.9
Poland	1,307	1,342	1,162	-13.5
UK	426	426	431	1.2
<b>Total</b>	<b>9,247</b>	<b>9,150</b>	<b>8,814</b>	<b>-3.7</b>

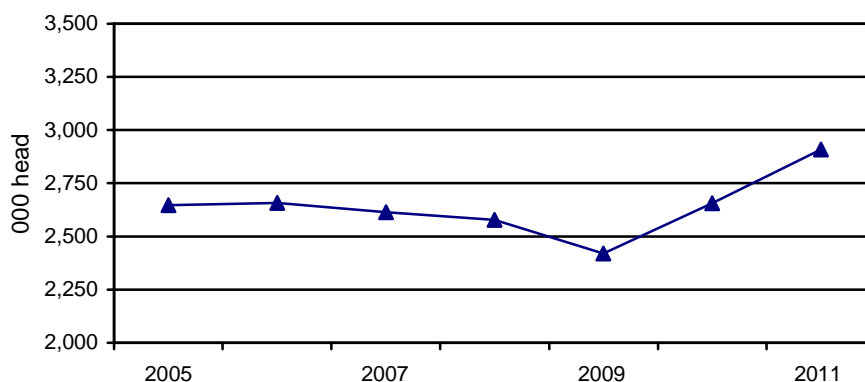
Source: Eurostat

Sows in Table 11 are defined as gilts from first service. The selected key countries represent about 88 percent of the total EU sow numbers and include the largest EU pig exporters.

## 6. Slaughter Pig Disposals in 2011

The number of pig disposals in 2011 were 9.4 percent higher than in 2010. This reflected an increase in the productivity of the national sow herd and the introduction of new vaccines onto the market which reduced mortality.

**Figure 5: Irish pig slaughter from 2005 to 2011**



Source: CSO

The ratio of Republic of Ireland origin pigs in total pig slaughter in Northern Ireland plants had been increasing in recent years but remained steady in 2011 at 18 percent as illustrated in Table 12.

**Table 12: Slaughter and Live Export of Irish Pigs 2010 and 2011**

Year	Rep. of Ireland Licensed Export Plants	Exports to Northern Ireland	% Exports of Total
	million head		%
<b>2006</b>	2.619	0.478	15%
<b>2007</b>	2.570	0.512	17%
<b>2008</b>	2.511	0.457	15%
<b>2009</b>	2.363	0.482	17%
<b>2010</b>	2.601	0.558	18%
<b>2011</b>	2.847	0.610	18%

Source: DAFM & DARDNI

The trend of increased slaughter pig disposals in 2011 is also reflected in Europe as illustrated in Table 13. Over a 47 week period (except UK) the major European producing countries increased the number of pigs being slaughtered by 2.1 percent in 2011 compared to 2010.

**Table 13: European Pig Disposals 2010 and 2011**

	Year		Change
	2010*	2011*	
<b>Country</b>	Million head		%
<b>Germany</b>	46.427	46.803	0.8%
<b>Spain</b>	26.507	27.306	3.0%
<b>France</b>	18.189	18.083	-0.6%
<b>Denmark</b>	16.061	16.518	2.8%
<b>Netherlands</b>	12.472	13.083	4.9%
<b>UK</b>	6.806**	7.304**	7.3%
<b>Total</b>	126.462	129.096	2.1%

Source: MPB

\*Based on 47 weeks of production

\*\* Based on 39 weeks of production

A further analysis of the European data reveals a declining trend of pig disposals year-on-year. The first 30 weeks of 2011 revealed a 2.3 percent

increase year-on-year but the following 17 weeks revealed this increase had declined to 1.7 percent.

When the principal exporting countries (Germany, Netherlands, Denmark) are further analysed (Table 14) it reveals year-on-year decline of 0.2 percent for the latter 17 weeks analysed.

**Table 14: Slaughter Pig Disposals in the Major European Exporting countries**

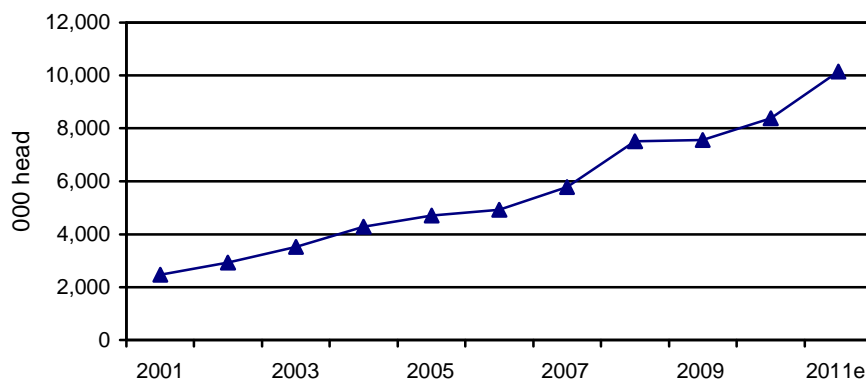
	Week 1 - 30		% Change	Week 31 - 47		% Change
	2010	2011		2010	2011	
	million head			million head		
Germany, Denmark & Netherlands	46.893	48.387	3.2%	28.068	28.016	-0.2%

Source: MPB & Teagasc Pig Department

## 7. EU Pigmeat Exports & Imports in 2011

The export of pigmeat products outside the EU continued to increase in 2011 as shown in Figure 6. The volume exported from January to October 2011 was 21 percent higher than the same period in 2010 and is 50 percent higher than in 2001. The largest export destinations were Russia, Hong Kong and China which contributed 56 percent of the total volume exported from the EU.

**Figure 6: EU pigmeat exports from 2001 to 2011**



Source: Eurostat COMEXT e = estimate

The total volume of EU pigmeat imports declined by 15 percent in January to November 29 when compared to the same period in 2010.

## 8. Outlook for the Irish Pig Market in 2012

The outlook for the pig market can be segregated into pig feed and pig price as these will be the key factors affecting profitability.

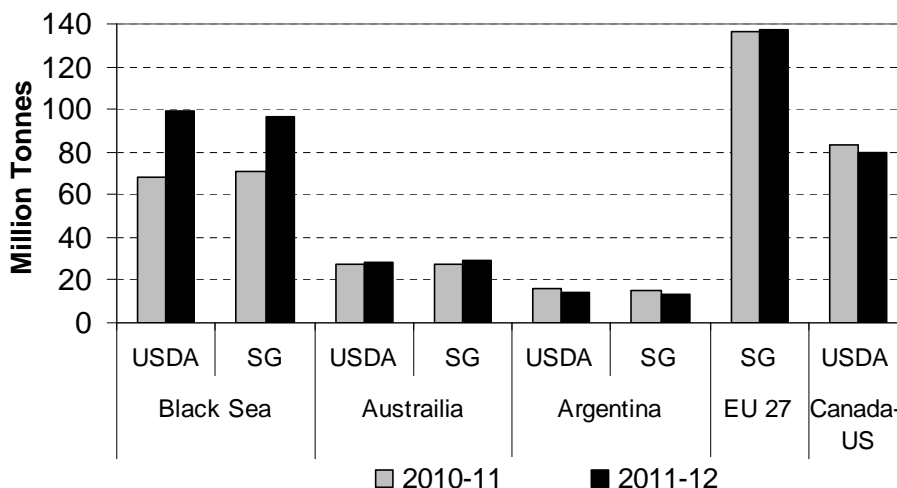
### 8.1 Irish Pig Feed Price Outlook in 2012

Pig feed is the single largest input cost (70 percent) of pig production therefore the cost trend of this input will have a substantial effect on the profitability of the sector in 2012. The feed outlook can be divided into the outlook for wheat and soyabean as these are the principal pig feed cost drivers.

#### 8.1.1 Wheat Prices in 2012

The level of wheat production in 2011/12 is predicted to be among the highest of all time. The Black Sea had a bumper harvest in 2011/12 and it appears that Australia will also exceed their record harvest from last year by 1 Mt. The Argentinean harvest is predicted to be lower than 2010/11 but still substantial at 13 Mt. The overall global wheat production is forecast by USDA and Strategie Grains to be 686 – 689 MT. This is approximately 32 Mt higher than in 2010/11. Forecast wheat production from principal export regions is shown in Figure 7.

Figure 7: Forecast Wheat Production for 2011-2012



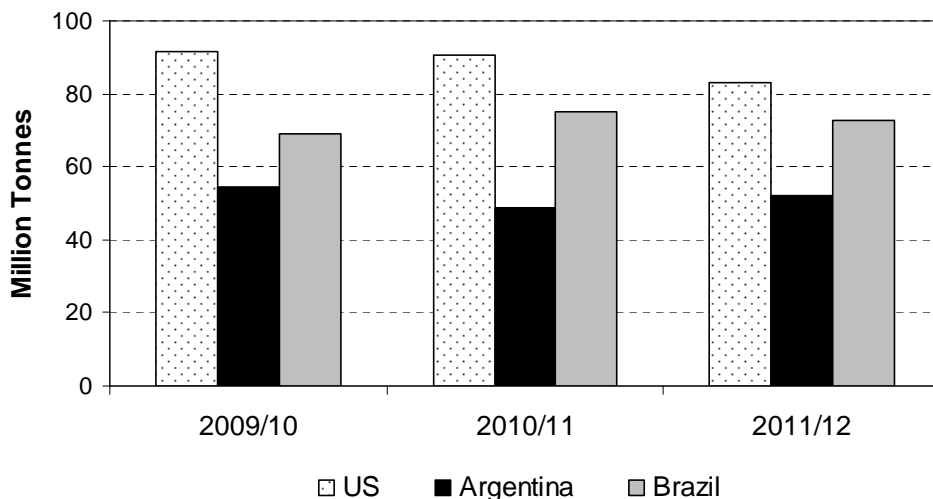
Source: USDA & Strategie Grains (SG)

The global closing stock of wheat in 2010/2011 is forecast to be very comfortable with a closing stock to usage ratio of approximately 29 percent.

### 8.1.2 Soyabean

The forecast volume of global soyabean production in 2012 is predicted to be 259 Mt (USDA), which will be lower than last year (264 Mt) but similar to 2009/10 (261Mt). Argentina is predicted to have a bumper harvest of 52 Mt but is dependant on the El Nina weather system not depressing yields. Brazil is forecast to have a lower harvest than last year by 3 Mt but will still produce 72Mt. The demand for soyabeans within the EU is expected to be lower than last year due to the availability of cheaper wheat creating a substitution effect. Forecast soyabean production from principal export regions is shown in Figure 7.

**Figure 8: Forecast Soyabean Production for 2011-2012**



Source: USDA

### 8.1.3 Irish Pig Feed Prices in 2012

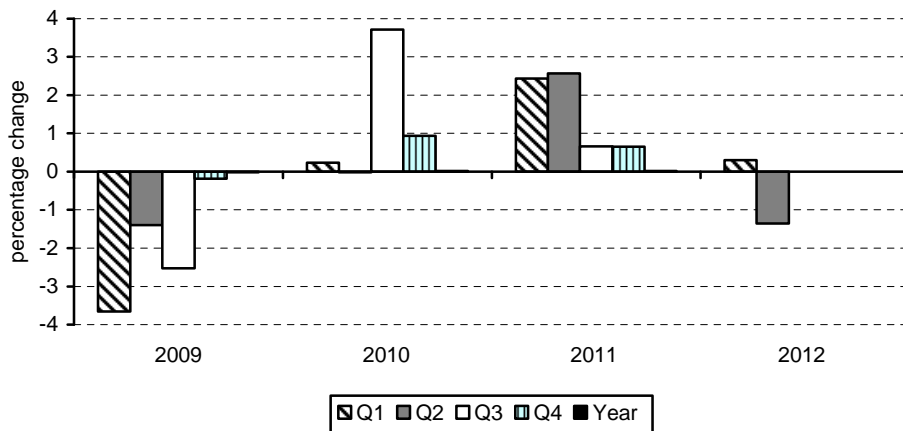
The estimated composite compound feed price in December 2011 was €296 per tonne. It is anticipated that feed ingredient prices will fall further due to the abundance of wheat on the global market and the predicted satisfactory soyabean yields. In 2009 in a similar scenario the composite pig feed price fell to €252 after high feed prices in 2008. In the author's opinion the composite feed price in 2012 will react in a similar fashion and will decline by 8-10 percent from current price levels.

This price fall will be dependant on the euro exchange rate remaining relatively steady and continued volumes of Chinese soyabean purchases that are close to the predicted: 56 million tonnes for 2011-12.

## 8.2 Irish Pig Prices in 2012

The Irish pig price was relatively strong in 2011 and in the authors view this will continue in 2012. The continuing reduction in the EU sow herd size and the trend of declining slaughter pig disposals (Figure 9) will reduce the availability of pigs for sale. In addition the buoyant export market looks set to continue due to the current weak euro.

**Figure 9: Change in EU Quarterly Pig Slaughter 2009 -2012**



Source: Eurostat

Note: Changes measured versus corresponding period in previous year

## 8.3 Profit Margin

If the feed price falls as forecast and the pig price remains buoyant then there will be moderate profit margin available for pig producers in 2012. This margin is critically required in order to restore the industry to a sound financial base, allow feed debt to be reduced and enable producers to evaluate the feasibility of investment in building infrastructure to comply with forthcoming sow welfare regulations in January 2013.

## 9. Conclusion

In 2011 the Irish pig industry suffered the worst economic conditions in over twenty years primarily due to the escalating feed costs. In light of these conditions the size of the Irish sow herd has remained very resilient with only a small reduction in size. The outlook for 2012 is for the industry to return to profitability with feed prices looking set to decline from their current high plateau. The composite pig feed cost of €296 in December 2011 is expected to fall by 10 percent during the current year provided currency exchange rates remain relatively stable and harvested crops return average yields close to the five year average.

The pig price was strong in 2011 compared to 2010 but not sufficiently high to offset the negative impact of the rise in feed costs on profitability. It is expected that the market conditions in 2012 will continue to return a high pig price primarily due to a reducing number of pig disposals in the main European pig producing countries and strong export conditions outside the EU.

The lower feed cost and strong pig price are expected to generate a healthy profit margin for pig producers in 2012. This will be required to reduce previous accumulated losses and allow necessary infrastructure investment in sow welfare housing.

# **SITUATION AND OUTLOOK FOR TILLAGE 2011/12**

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## **1. Introduction**

Harvest prices in the cereals sector in 2011 were higher than in 2010. The relatively high prices received at farm level in 2010 were repeated again at harvest 2011, coupled with above average yields. There was however a number of factors, which resulted in some cost price pressure for tillage farmers in 2011.

The upward movements of prices since mid 2010 was associated with several factors, the most important of which was a decrease in the production estimates for crops in key producing countries, which resulted in a draw down of stocks and tighter global supply and demand balances in 2010/11.

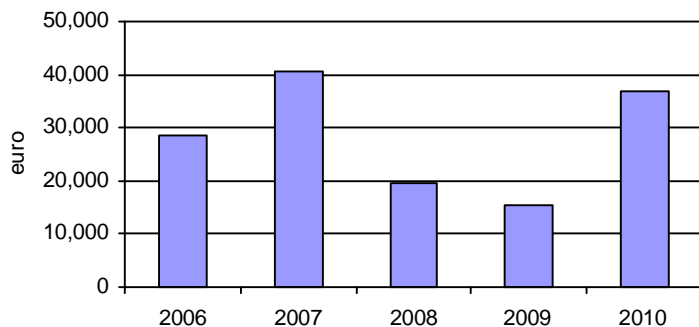
This paper will consider whether the price increases of the 2011 harvest can be considered atypical or whether prices will continue at elevated levels into the 2012 harvest. The costs of production on tillage farms in Ireland will also be considered to arrive at an estimate of tillage enterprise profit for 2011 and a forecast for 2012. This paper uses Irish National Farm Survey (NFS) data to conduct a review of the financial performance of tillage farms in 2010. Following this, price and costs are estimated for 2011 to produce an estimate of profit for the 2011 harvest year. In the concluding sections of the paper, the outlook for 2012 is presented.

## **2. Review of the Economic Performance of Tillage Farms in 2010**

Approximately 6,500 mainly tillage farms were represented by the NFS in 2010. Income on these farms increased by 141 percent from 2009 to 2010, but it is important to note that this is on the back of a very poor year in 2009. Market based gross output increased by 55 percent in 2010. Yields per hectare increased by on average 5 percent while the price per tonne increased by over 50 percent. Input expenditure increased by about 10 percent. These changes resulted in an average family farm income (FFI) in 2010 of €36,759 which is equivalent to a 40 percent increase on the average of the previous four years.



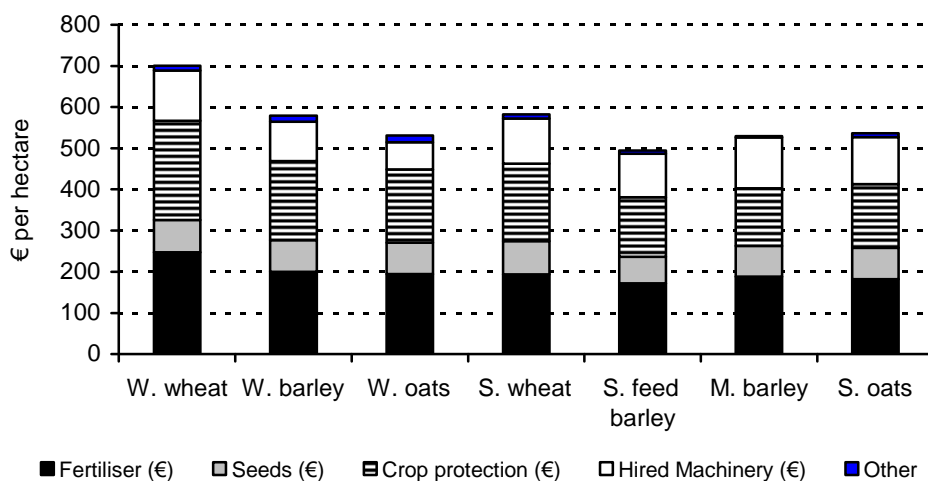
**Figure 1: FFI on Specialist Tillage Farms in Ireland: 2006 to 2010**



Source: National Farm Survey (various years)

To understand the economic performance of tillage farms in 2010, we begin with a review of the cost and return structure of the main cereal crops using NFS data. Figure 2 disaggregates the direct costs of production for cereal crops in 2010.

**Figure 2: Composition of Direct Costs for Irish Cereal Crops, 2010**



Source: National Farm Survey (2011)

Figure 2 shows that in general, direct costs are higher in winter sown crops compared to spring sown crops, which is due to higher fertiliser and crop protection costs in winter crops. However, given that yields are generally higher in winter sown crops the more appropriate comparative economic indicator is gross margin which is shown in Figure 3.

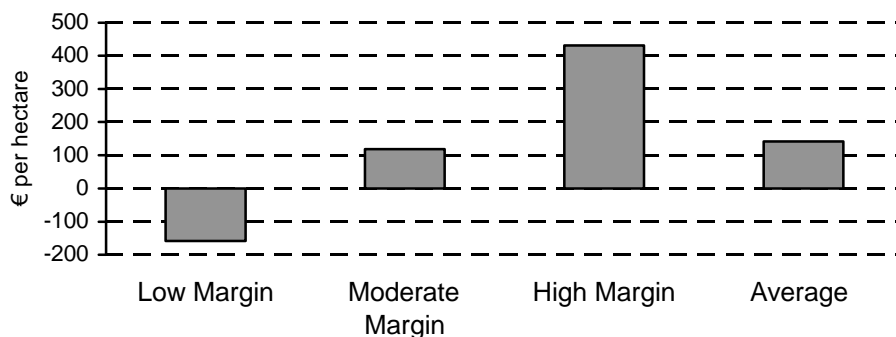
**Figure 3: Gross Margins per ha for Irish Cereal Crops, 2010**



Source: National Farm Survey (2011)

Figure 3 shows that the average gross margin per hectare for all winter crops is generally higher than the gross margin for spring sown crops. Winter wheat recorded the highest margin of all crops in 2010, closely followed by Winter barley and Winter oats (see Table A1 for further detail). The gross margin for all cereal crops was significantly higher in 2010 compared to 2009 or the average of the previous 5 years. The gross margin for Winter wheat and Spring barley in 2010 was 38 percent and 78 percent higher than the previous five year average respectively. While gross margin estimates are useful for comparative purposes, it is also worthwhile to examine the shift in net margin over time. However for cereal crops it is difficult to allocate overhead costs and straw output to individual crops within the NFS. For this reason, net margin of the entire specialist tillage farming population within the NFS is examined, shown in Figure 4 below.

**Figure 4: Cereal Enterprise on Specialist Tillage System Farms: Net Margin Distributions, 2010**



Source: National Farm Survey (2011)

To examine the variation in margin that exists on tillage farms, the sample which was weighted to represent the population of 6,500 specialist tillage farms, was classified into three groups. Farms were classified on the basis of net margins; the best performing one third of farms are labelled high margin, the middle one third are moderate margin and the poorest performing one third of tillage farms are classified as low margin. The variation in margins across farms is apparent from Figure 4. The net margin for the cereal enterprise per hectare on high margin farms in 2010 was €430 per hectare compared to €118 on moderate margin farms and -€158 per hectare on low margin farms. It is important to remember that these margins include production output only; hence by definition the Single Farm Payment (SFP), which is decoupled from production, is not included in these figures.

### **3. Estimated Review of 2011 Performance**

This section of the paper presents a review of the cereal sector in 2011. To provide an estimate of enterprise profitability for the current year, it is necessary to estimate the volume and price of inputs that are likely to have been used as well the volume and value of outputs. The ensuing sections of the paper discuss first, the movements in input prices and usage in 2011 and second, the cereal market conditions, harvest yields, and production in 2011.

#### **3.1 Estimated Input Usage and Price 2011**

##### **3.1.1 Fertiliser – Usage and Price 2011**

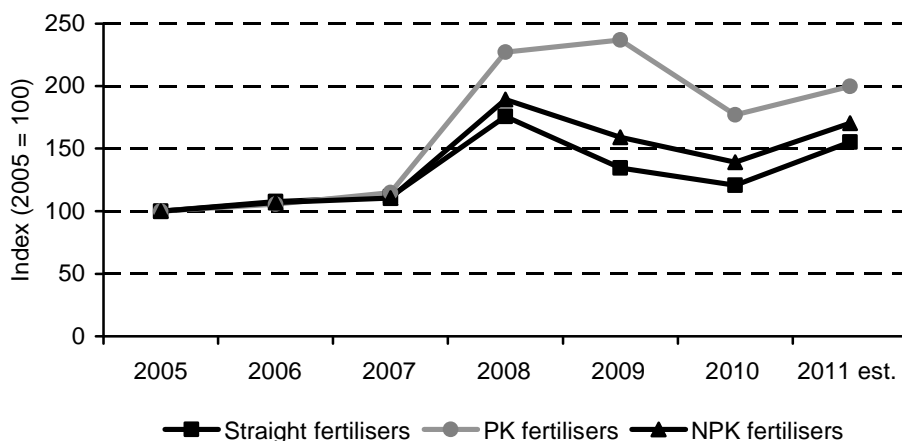
In the early half of the last decade fertiliser costs typically comprised about 25 percent of direct costs and just over 10 percent of total costs on tillage farms. However, as illustrated in Figure 5, fertiliser types commonly used on tillage farms have increased substantially in price since 2005, with a very considerable increase occurring during 2008 and 2009. The Central Statistics Office (CSO) recorded price in 2008 for P&K and straight nitrogen fertilisers were approximately 125 percent and 75 percent higher than 2005 levels respectively. Increased energy prices, in particular the price of natural gas which is a key determinant of fertiliser price, was the major driving force behind the upward trend for fertiliser prices throughout the 2000s. Increased demand and relatively fixed production capacity was also a factor. However, following the peak in 2008 and 2009, the pressure on fertiliser prices eased somewhat for the 2010 harvest year, but upward pressure on fertiliser prices was again witnessed in the 2010/11 harvest year. In the 2010/11 harvest year it is estimated that straight nitrogen products and P&K products increased by between 25 and 30 percent over

2010 prices. It is important to note however, that these prices are still below the prices recorded in the peak period of 2008 and 2009. However, the monthly price statistics for the third and later quarter of 2011 once again shows an upward movement in straight nitrogen and compound fertilisers which will have an effect on fertiliser prices for the 2012 harvest year.

The pattern of fertiliser purchases on cereal farms is somewhat different from that of grassland farms, with application been spread throughout the sowing and growing season from September of one year to May or June in the following year, depending on whether the crop is Spring or Winter sown. On this basis, It is estimated that the fertiliser prices for cereal crops were up by approximately 15 to 25 percent in 2011 compared to 2010 depending on whether the crop was Winter or Spring sown.

On the usage side, DAFM figures indicate that fertiliser purchases in the 2011 fertiliser year (October 2010/September 2011) decreased for all three elements, with N down approximately 5 percent and P&K down between 2 and 3 percent. However, when seasonality of purchases is taken into consideration for cereal farms, the overall sales of fertiliser in the first quarter of 2011 were up approx. 10 percent on the same period in 2010. This overall increase in fertiliser usage on crop farms in 2011 can be attributed to relative price movements in cereals in first half of 2011 compared to cereal price movements in the same period in 2010.

**Figure 5: Irish Farm Gate Price Index of Fertilisers 2005 to 2011**



Source: Central Statistics Office data for 2000 to 2010. Author's estimates for 2011.

Given that the DAFM figure on fertiliser purchases refers to all fertiliser purchases for grassland and cropland it was necessary to consult reports

from farm advisors and industry sources to evaluate the change in fertiliser usage levels for crop farms. Reports from a number of sources seem to indicate that fertiliser usage per hectare in 2011 was up by about 10 percent on 2010 levels. However, overall usage on crop farms may not be suggestive of this decrease given the increase in crop area between 2010 and 2011. However in per hectare terms it is assumed that for 2011 usage was up approximately 10 percent. The increase in fertiliser usage on crop farms coupled with the increase in fertiliser prices experienced in 2011 leaves overall expenditure per hectare on fertiliser up in 2011 on the 2010 levels.

### **3.1.2 Seed – Usage and Price 2011**

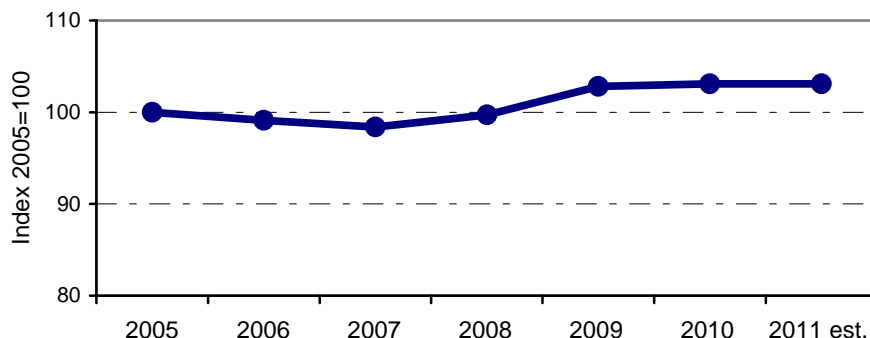
Purchased seed on crop farms is a less important input in expenditure terms in cereal production, comprising between 10 and 15 percent of direct costs for cereal production and just under 11 percent on average on all tillage farms in 2010. In terms of the composition of total costs, seed represented just over 5 percent of total costs in 2010. In 2011, cereal farmers experienced a considerable increase in seed costs relative to the previous year due to the significant upward movement in the cereal prices. In autumn 2010 when seed supplies were purchased for the 2011 harvested winter crops, blue label seed cost increased by approximately percent, from €410 per tonne in 2009 to €460 per tonne in 2010. This cost increase was also evident in 2011 for spring sown crops relative to the 2010 sown spring crops.

### **3.1.3 Crop Protection – Usage and Price 2011**

The expenditure on crop protection by specialist tillage farms in 2010 accounted for 23 percent of direct costs and 11 percent of total costs. However the contribution of crop protection to the composition of costs can vary significantly depending on the crop, with the percentage spend on winter crops higher than on spring crops. For example on the winter wheat crop in 2010, crop protection costs accounted for 34 percent of direct costs, compared to 26 percent for Spring Barley.

Compared to other significant costs on tillage farms, the increase in costs of crop protection has been limited over the recent past. Figure 6 shows the increase in costs of crop protection products from 2005 to 2011 was under 5 percent and the costs between 2010 and 2011 are estimated to have decreased slightly by about 2 percent. However this decrease in prices is not reflective of the introduction of new chemistry to the cereals market in 2012. To reflect the inflationary pressure associated with this new chemistry a static price inflation between 2010 and 2011 is assumed. Volume changes between 2010 and 2011 are estimated to be negligible.

**Figure 6: Price Index of Plant Protection Products in Ireland 2005 - 2011**



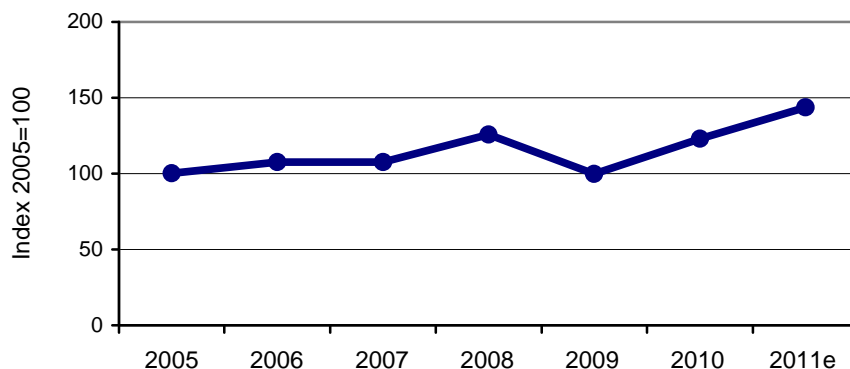
Source: Central Statistics Office data for 2000 to 2010. Author's estimates for 2011.

### **3.1.4 Energy and Fuel – Usage and Price 2011**

Energy and fuel are important inputs in crop production. Given that a number of direct costs and overhead costs are directly influenced by energy and fuel prices the trend in energy prices is of significant importance for the average tillage farmer. In this analysis it is assumed that hired machinery and transport costs which are a component of direct costs and machinery operating expenses which are a component of overhead costs are directly influenced by energy inflation. These cost items represented just under 25 percent of total costs on tillage farms in 2010.

Based on the CSO estimates presented in Figure 7, the farm level price of fuel has increased by just over 40 percent between 2005 and 2011. The significant increase in prices which occurred between 2007 and 2008 was offset by a brief reprieve between 2008 and 2009 before prices again continued to rise from 2009 onwards. Between 2010 and 2011 as a result of rising crude oil prices, a weakening of the euro against the US dollar and further carbon tax rate increases, fuel costs in Ireland increased significantly (by approximately 17 percent on a calendar year basis). This estimation is based on a comparison of the motor fuel index from the CSO for 2010 and the first ten months of 2011. For winter and spring sown crops the increase in energy prices is estimated at just under 20 percent. The differential between the calendar year price increase and the assumed price increase for cereal crops is due to the seasonality of purchases. Demand for these input items tends to be relatively inelastic with respect to price and therefore it is assumed that usage in 2011 will be on a par with the 2010 level. Overall expenditure on fuel related items is likely to be 20 percent higher in 2011 relative to 2010.

**Figure 7: Price Index of Fuel Products in Ireland 2005 - 2011**



Source: Central Statistics Office data for 2000 to 2010. Author's estimates for 2011.

### **3.1.5 All other direct and overhead costs – Usage and Price 2011**

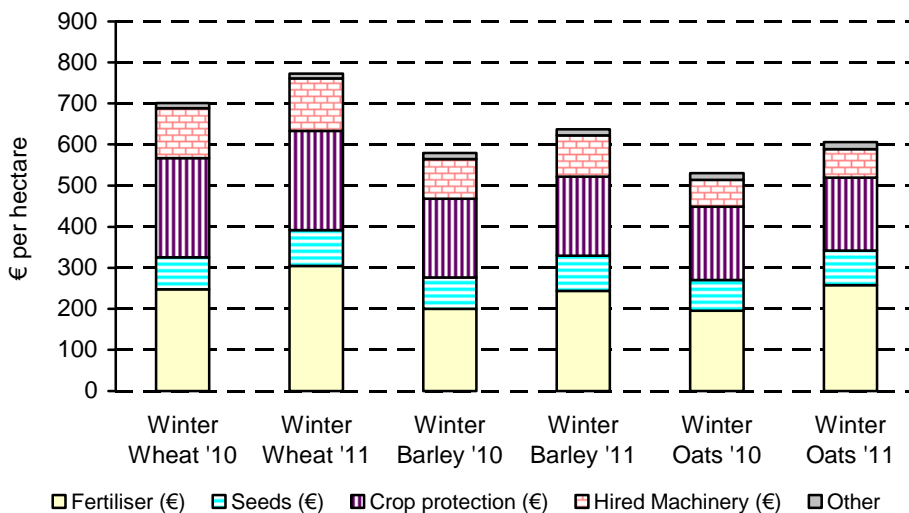
Based on CSO estimates for the first ten months of 2011 compared to the same time period in 2010 it is assumed that labour costs and agricultural 'other costs' within agriculture increased by approximately 1 percent in 2011 relative to 2010.

The average cost of land rental in 2010 on specialist tillage farms was just over 8 percent of total costs. Given that farm gate cereal prices increased significantly in 2010 there was a consequent increase in land rental prices. It is estimated that land rental prices increased by approximately 10 percent in 2011 relative to 2010. This estimate is based on observing historic NFS data on land rental prices and the relationship with cereal prices. While the convention is to assume that land rental prices react strongly to changes in cereal prices the data from the NFS indicates that cereal price inflation is not translated in its entirety to land rental charges. Hence, despite a significant increase in cereal prices in 2010, it is assumed that the average land rental agreement was increased by only 10 percent.

### **3.1.6 Estimate of Total Input expenditure for 2011**

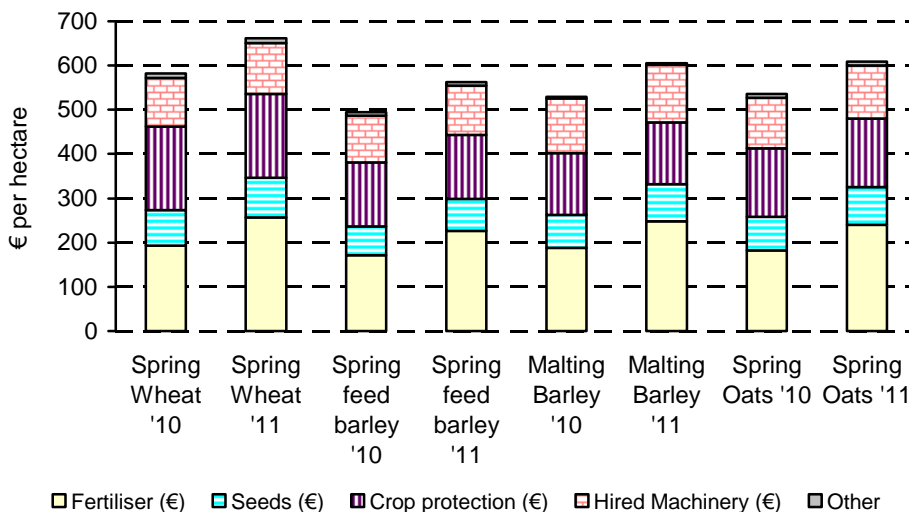
Total expenditure on all input items is estimated to have increased in 2011 relative to 2010. The most significant increase in expenditure occurred with fertiliser, which is estimated to have increased by between 25 and 30 percent between 2010 and 2011, taking into account estimated volume and value changes. On average, the increase in total direct costs was approximately 13 percent in 2011 relative to the 2010 level.

**Figure 8A: Direct Costs on Cereal Production in Ireland 2010 and Estimates for 2011(Winter Crops)**



Source: National Farm Survey Data (2010) and Authors' Estimates (2011)

**Figure 8B: Direct Costs on Cereal Production in Ireland 2010 and Estimates for 2011 (Spring Crops)**



Source: National Farm Survey Data (2010) and Authors' Estimates (2011)

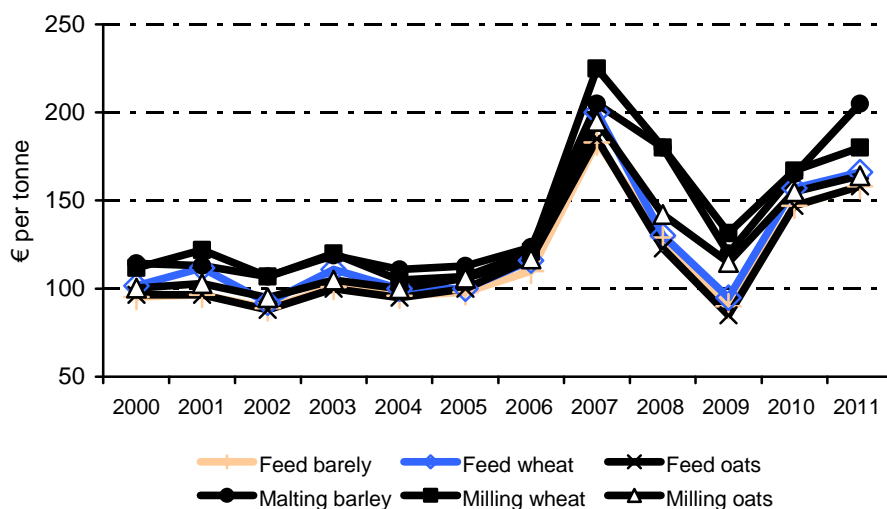


## 3.2 Estimated Output Values 2011

### 3.2.1 Price, yield and moisture levels in 2011

Unprecedented volatility has been witnessed in cereal prices in Ireland since 2006, with prices reaching a historical high in nominal terms in 2007, followed by a significant drop in prices in 2008 and again in 2009. In 2010 farm gate cereal prices increased significantly but did not reach the levels seen in 2007. In 2011 farm gate cereal prices increased again over those witnessed in 2010. Figure 9 below shows that farm gate feed wheat, barley and oat prices at 20 percent moisture (paid at harvest time) were up between 6 and 7 percent in 2011 relative to 2010. This price represents approximately a 30 percent increase on the previous three year average. The biggest price increase for cereals at harvest 2011 was evident for the malting barley crop with an increase of approximately 25 per cent.

**Figure 9: Farm Gate Irish Cereal Prices, 2000-2011**



Note: Prices are 20 percent Moisture, exVAT

Source: Authors own estimates

While the majority of cereals in Ireland are still sold off farm at harvest time to a grain merchant on a green moisture basis, the ability of farmers to forward sell grain has introduced an additional complication to the calculation of the average price received by farmers. A special survey conducted by the NFS in 2011 examined the proportion of the 2011 cereal harvest which was forward sold. This research indicated that approximately 25 percent of total cereal production in 2011 was forward sold by farmers. To account for this new departure in the mechanism of selling cereals off

farm it was important to observe historic futures prices between key dates to estimate forward sales prices. This futures data (adjusted to take account of drying charges, exchange rates and transport charges) was used in addition to the green price at harvest as outlined in Figure 9 above to calculate a weighted average price of grain sold green at harvest time (75 percent weighting) and forward sold grain (25 percent weighting). Using this method of calculation a price increase of 11 percent was observed between 2011 relative to 2010 for feed wheat and barley, compared to the 6 and 7 percent increase which was calculated when green prices at harvest time were examined in isolation from forward selling arrangements.

Given that the final farm gate cereal price is based on moisture differences above and below 20 percent, it is also important to consider the weather at harvest in 2011. Table 1 shows that the favourable conditions at harvest in 2011 resulted in moisture contents for all cereal crops below average levels recorded in recent years.

The last variable which must be considered when output value is estimated is yield per hectare. Table 1 shows the average green yields obtained in 2010 and 2011. In general for the 2011 harvested crops, sowing conditions for winter and spring crops were good. The weather conditions during the growing season were also very favourable with dry sunny weather in the Summer months having a positive impact on grain fill. Hence, on average crop yields in 2011 were described as well above 'average'. However, it must be remembered that these yields are green yields and not adjusted for moisture content.

**Table 1: Average Yields and Moisture Levels, 2010 – 2011 Harvest**

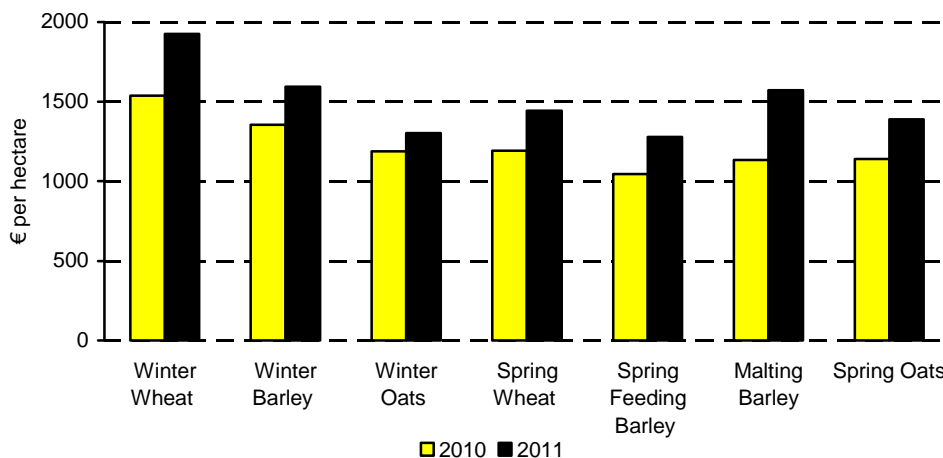
	Yield (tonne per ha.)		Moisture (%)	
	2011	2010	2011	2010
<b>Winter Wheat</b>	10.2	8.9	18.5	17.7
<b>Winter Barley</b>	9	8.5	18.0	18.5
<b>Winter Oats</b>	7.7	7.8	18.2	18.2
<b>Spring Wheat</b>	8.3	7.6	19.4	18.3
<b>Spring Barley</b>	7.5	6.7	17.9	17.5
<b>Spring Oats</b>	7.9	7.2	18.5	18.6

*Source: CSO 2010 & Teagasc Harvest Report (2011)*

### 3.2.2 Estimate of Total Output Value for 2011

Total output value per hectare for all cereal crops is estimated to have increased quite considerably in 2011 relative to 2010. Output was up on average 22 percent on 2010 levels.

**Figure 10: Actual Gross Output per Hectare 2010 & Estimated Gross Output per Hectare 2011**



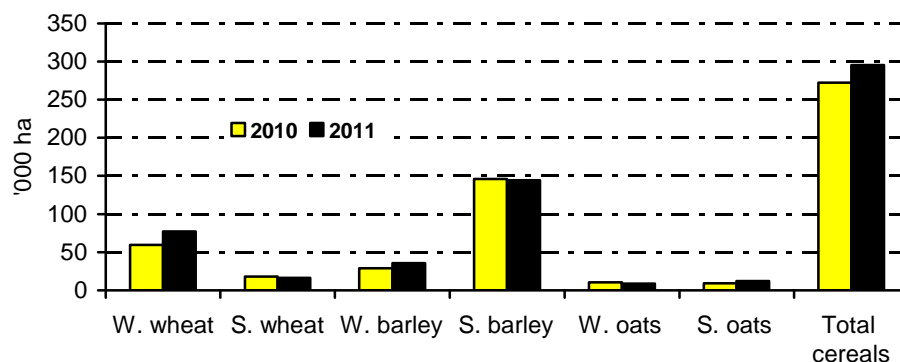
Source: National Farm Survey (2011) and Author's own estimates.

### 3.2.3 Estimate of Total Production 2011

The figures presented in section 3.2.2 illustrate output value per hectare. However these estimates do not take into consideration the increase in area devoted to cereal crops in 2011. Figure 11 shows the area estimates for 2011 based on CSO estimates.

Figure 11 shows that the total area devoted to cereal production increased by 9 percent in the 2010/11 crop year compared to the 2009/10 crop year. The largest percentage increase in area was witnessed in spring oats, where total area devoted to the crop increased by 30 percent year on year, however this increase was mainly due to a significant decline in winter oats area planted. Total wheat area increased by 20 percent and barley increased by a mere 3 percent. Total area planted to oats increased by 7 percent.

**Figure 11: Change in Irish Crop Area from 2009/10 to 2010/11 Crop Year in Ireland**



Source: CSO and Teagasc Harvest Report (2011)

Table 2 combines actual total cereal production for 2010 as reported by the CSO with estimated total cereal production for 2011. The estimated 2011 production of wheat, barley and oats is based on 2011 yield estimates from the Teagasc harvest report and CSO statistics for the 2011 area planted. Overall cereal production is estimated to be up 457, 000 tonnes or 22 percent on 2010 levels.

**Table 2: Actual & Estimated Production 2011 & 2010**

	2010	2011	%Change
	000 tonnes		
<b>Wheat</b>	669	924.6	+52
<b>Barley</b>	1223	1407.6	+15
<b>Oats</b>	148	165.7	+12
<b>Total</b>	2040	2497.9	+ 22

Source: CSO and Teagasc Harvest Report 2011

### 3.2.4 International Production Estimates for 2011

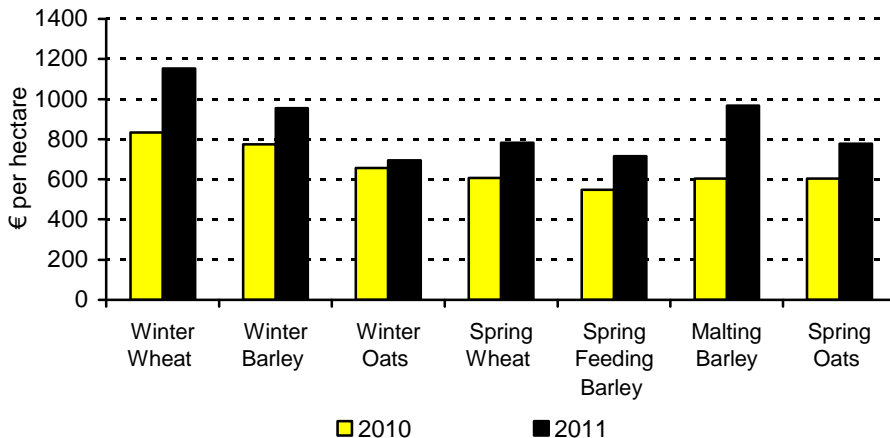
While production estimates for Irish cereals are important from a national supply, demand and balance sheet perspective, it is primarily developments in the international supply and use balance for cereals that affects price development. For this reason a review of the international end stocks for cereals is more informative when price developments for the coming harvest year is been estimated. The latest edition of Strategie Grains (December 2011) estimates that the total production of grains within the EU for the marketing year 2011/12 was 284 million tonnes, with 2.3 million

tonnes of carry out stocks. Carry out stocks are more or less the same in the current marketing year as the previous within the EU. The IGC estimates (Strategie Grains, December 2011) shows that global wheat production for 2011/12 to be up on the previous year but ending stock supply to use ratio to remain slightly behind the situation at the end of 2010/2011. The world maize situation however appears to be in a 'heavier' forecast position for year end with ending stocks forecast up on the previous year and the carry out stock to use ratio slightly higher than the previous year. The world barley year end forecast is for a decrease in ending stock volume but for no change in the stock to use ratio, which is similar to 2010/11 at 21 percent.

### 3.3 Review of Tillage Enterprise Margins in 2011

The review of cereal output value showed that the average value of output received by farmers across all cereal crops was approximately 20 percent higher than the average in 2010, while the review of input costs concluded that total direct costs were approximately 13 percent higher in 2011 than 2010. Figure 12 presents the effect on gross margin for each of the main cereal crops.

**Figure 12: Actual Gross Margin in 2010 & Estimated Gross Margin for 2011 for each of the Main Cereal Crops**



Source: National Farm Survey (2011) and Author's Own Estimates for 2011

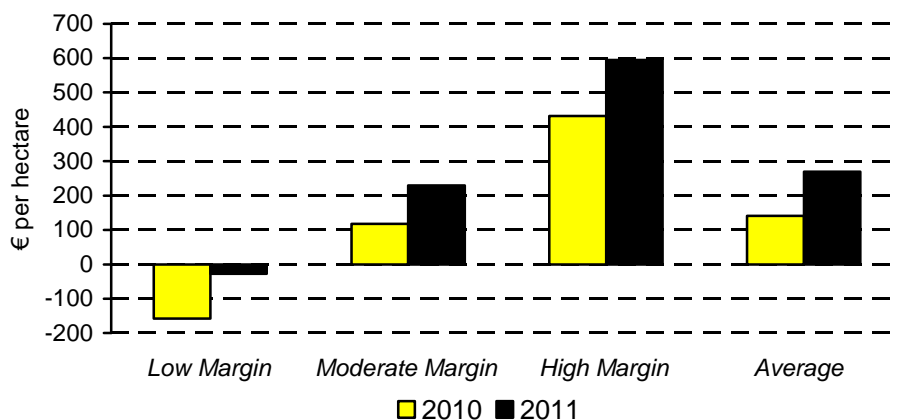
Figure 12 shows an increase in gross margin for all cereal crops in 2011 relative to 2010 due to the increase in output value coupled with a less severe increase in direct costs. For example, the gross margin for winter wheat is estimated to be up by approximately €320 per hectare, while the gross margin for spring barley is estimated to be up by approximately €170 per hectare on the 2010 level. It should be noted that the average gross

margin figures presented above are market based gross margins and therefore exclude all decoupled payments.

Similar to the format used to present margins for 2010 earlier in the paper, the estimated net margins for 2011 are presented for the cereal enterprise on specialist tillage farms, as well as the population disaggregated into one-third groupings based on margins obtained.

Figure 13 shows the cereal enterprise net margin estimates for 2011 relative to 2010, for the average of the specialist tillage farming population, in addition to the margins for the disaggregated population.

**Figure 13: Actual Net Margin 2010 and Estimated Net Margin for 2011 for the Cereal Enterprise on Specialist Tillage Farms**



Source: National Farm Survey (2011) and Author's own estimates.

The estimate for net margin in 2011 shows a significant improvement over the margins obtained in 2010. For the best performing one-third of tillage farmers the estimated net margin for 2011 was €595 per hectare, and for the average farmer was €270 per hectare. It is important to remember that these figures exclude the SFP.

#### 4. Outlook for 2012

In this section forecasts are provided on the expenditure for various input items in 2012, the likely farm gate cereal price that will prevail at harvest 2012 and the likely net margin of tillage farmers in 2012.

## **4.1 The Outlook for Input Expenditure**

### **4.1.1 Fertiliser – usage and price 2012**

A number of factors need to be considered when price and volume changes for fertiliser on crop farms are forecast for 2012. While CSO official monthly price indices for fertilisers did show a steady month on month increase for the first 10 months of 2011, there was a fall in price for Urea based fertiliser products in the last two months of 2011 and a fall in P&K compounds in early January 2012, but no official statistics are available as yet to document this fall in price. Market reports indicate that Urea prices dropped by nearly 10 percent in the last two months of 2011. Despite this recent price fall in Urea based products the current forward buying prices for Urea, CAN and P&K based products are all trading well above the average price recorded in January 2011. P&K compound fertilisers are trading around 20 percent higher in early 2012 compared to the same period in 2011, whereas CAN is trading at about 12 percent higher than 2011. These suggested price increases are higher than suggested price increases for livestock farms due to seasonality of purchases. The upward trend in fertiliser prices can be attributed to a rise in oil prices, increase in commodity prices and uncertainty regarding supply capacity.

Fertiliser usage in 2012 is expected to be on a par with 2011 levels, given that for agronomic reasons the scope for reduction in use in response to higher fertiliser prices is limited for cereal production. Overall, it can be expected that fertiliser expenditure will increase by about 15 percent in 2012 on cereal farms. This expenditure increase is significantly more than the expenditure increase expected on livestock farms given expected price and volume changes on livestock farms.

### **4.1.2 Seed – usage and price 2012**

As mentioned previously in the paper, cereal farmers experienced an increase in seed costs in 2011 relative to the previous year due to the significant upward movement in the cereal markets. Given that cereal prices increased again in 2011 there has been a consequent further increase in seed prices for 2012. At present blue label seed prices are up about 6.5 percent on 2011 levels.

### **4.1.3 Crop protection – usage and price 2012**

The increase in costs between 2011 and 2012 is forecast to be of a similar magnitude to the changes seen in the previous three years, which was minimal at just under 1 percent. Volume changes between 2011 and 2012 are forecast to be negligible.

#### **4.1.4 Energy and Fuel – usage and price 2012**

Fuel costs in 2012 will depend mainly on the evolution of crude oil prices. Current crude oil futures prices suggest that prices will decrease from the 2011 average during the course of 2012 by about 3 percent. However, in terms of calculating the actual price paid at farm level for energy there are a number of other factors which need to be taken into consideration, such as the increase in VAT applicable from January 1<sup>st</sup> 2012 (increase of 2 percent) and the increase in carbon tax due on the 1<sup>st</sup> June 2012 (increase of 1.74 percent) Hence, for the purposes of this analysis it is assumed that fuel costs will remain at the average price paid in 2011. This static price assumption is also assumed for contractor charges in 2012. Assuming that usage is unchanged, expenditure on fuel and contractor charges are estimated to reflect the assumed price change.

#### **4.1.5 All other direct overhead costs 2012**

Given the continued weaknesses in the wider economy the outlook for other overhead costs are forecast to remain at 2011 levels in 2012.

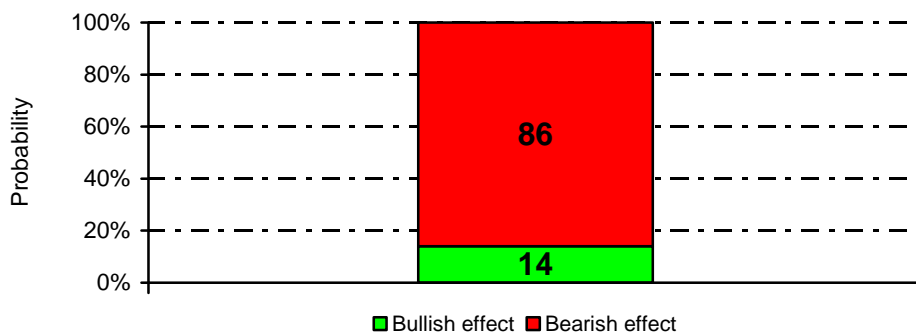
In terms of land rental prices for 2012, there appears again to be some upward pressure on prices in 2012 compared to 2011. The inflationary pressure on land rent can be attributed to (i) the increases in farm gate cereal prices paid in 2011 (relative to the increases witnessed in 2010) and (ii) concern at farm level regarding the use of 2014 as a base year for future SFP entitlements which is resulting in upward pressure on land rental costs. Hence, for 2012 it is assumed that land rental prices will increase by approximately 5 percent on 2011 levels.

#### **4.2 The Outlook for Markets 2012**

The cereals market has encountered significant volatility in recent years. Planting decisions will be based on expected farm gate cereal prices in 2012. A number of factors must be taken into consideration when price forecasts for the coming harvest are being evaluated. To formally evaluate the risk associated with predicting the 2012 harvest price an econometric analysis was conducted to predict the probability that the 2012 farm gate price will be higher or lower than the 2011 price. This analysis was based on the December 2011/January 2012 LIFE futures price for November 2012. The regression analysis examined the historic relationship between (i) predicted futures price for the following harvest, made from the previous December/January when planting decisions were been made, and (ii) the actual farm gate price paid at harvest one year hence. This regression analysis enabled a forecast to be made of the 2012 Irish farm gate cereal price for wheat taking into consideration the differences between the historic predicted values and the actual outcome.



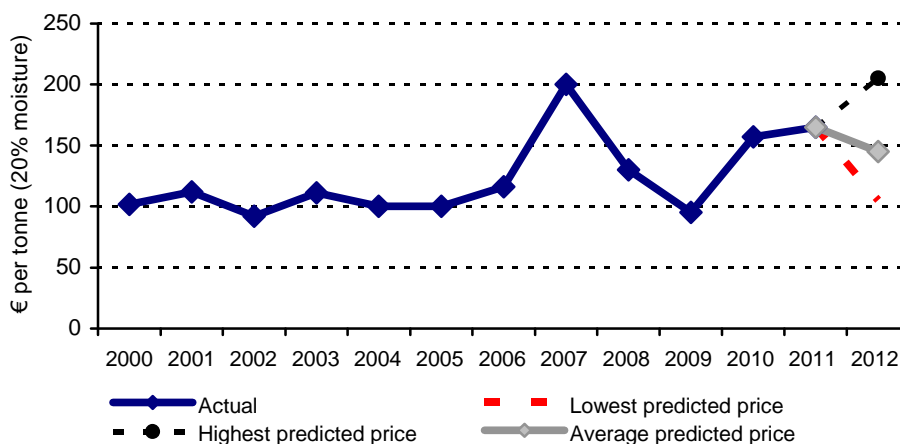
**Figure 14: Probability that the 2012 Irish Cereal Price will be lower/higher than €165**



Source: Author's own estimates.

Figure 14 shows that there is significant volatility around the forecast for the 2012 harvest price. There is an 86 percent probability that the wheat price at harvest 2012 will be lower than the €165 (the on account harvest price paid in 2011). However there is also a 14 percent probability that the 2012 price will be higher than €165 per tonne. Based on these probabilities the average predicted value from the model for the farm gate wheat price is approximately €145 per tonne at 20 percent moisture. However, there is significant variation surrounding this figure and based on a 90 percent confidence interval it is forecast that the figure could be as low as €113 per tonne or as high as €214 per tonne (Figure 15).

**Figure 15: Historic, Estimated and Forecasted Farm Gate Feed Wheat Price (2000 – 2012)**



Source: Author's own estimates, 2012 forecast, at 90 percent confidence interval

The latest estimates for planted area in the EU indicates that there will be downward pressure on cereal markets in 2012. The latest edition of *Strategie Grains* (December 2011) has forecast a 1 per cent increase in planted area in the EU for the 2012 harvest. These area estimates, together with trend yield values, provide a first estimate of EU cereal production in 2012 of 290 Mt which is up 2 percent compared with 2011. This estimated increase in production appears to be putting pressure on cereal markets which has been witnessed in recent months and is expected to continue into mid year based on latest futures price forecasts. The increase in production forecast for 2012 is forecast to reduce the harvest price in 2012 relative to 2011.

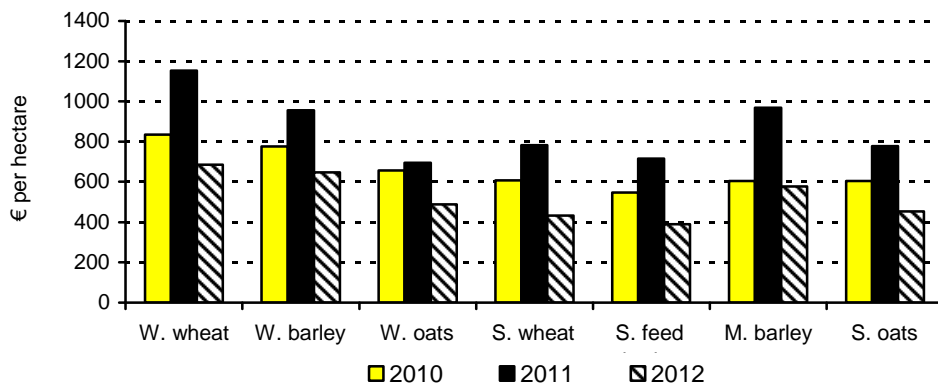
Based on the futures market forecast and the adjustments made in the regression analysis for predicted versus actual outcomes, it is assumed for this analysis that farm gate cereal prices will decrease in 2012, by about 12 per cent. In addition to farm gate cereal prices at 20 per cent moisture, account is also taken in the 2012 forecasted net margin for a return to average moisture levels in 2012, which would see a slight increase in moisture levels for some crops which were harvested at relatively low moistures in 2011.

#### **4.3 *The Outlook for Tillage Enterprise Margin in 2012***

Increases in seed, fertiliser and crop protection costs, land rent coupled with a relatively static general inflation factor for energy, and other inputs, suggest that cereal production costs are likely to be slightly higher in 2012 relative to 2011. In addition, output value is expected to decrease based on yield and price forecasts.

Figure 16 presents the actual gross margin for each of the main cereal crops in 2010, and the respective estimates and forecasts for 2011 and 2012. The net effect of input price, output price and volume movements is negative movements in gross margin forecasts for 2012 for each of the main cereal crops. While direct costs are forecast to increase across the board, based on trend yield forecasts, yields may be significantly lower than those achieved in 2011. For example, gross margins for winter wheat are forecast to decrease by approximately €450 per hectare, while gross margins for spring barley are forecast to decrease by approximately €320 per hectare. It should be noted that the average gross margin figures presented are market based gross margins.

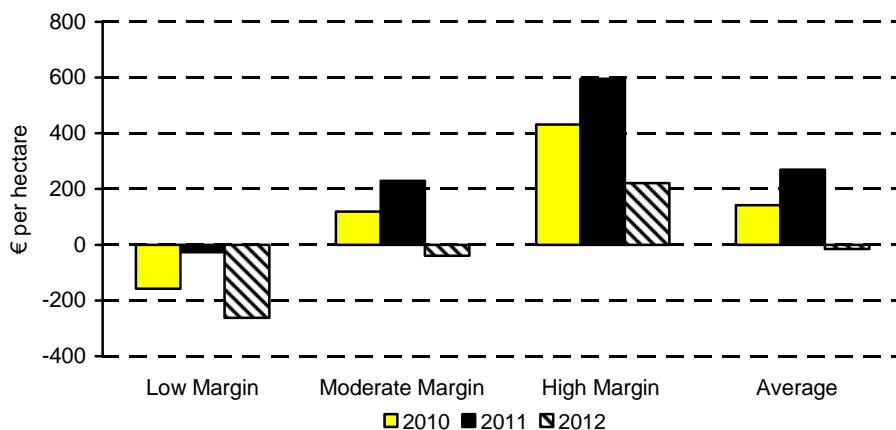
**Figure 16: Actual 2010, Estimate 2011 and Forecast 2012 for Cereal Crop Gross Margins**



Source: National Farm Survey (2011) and Authors' own estimates

Similar to the format used to present margins in 2010 and 2011 earlier in the paper, the forecasted net margins for 2012, are presented for the cereal enterprise on specialist tillage farms, as well as the population disaggregated into one-third groupings based on margins obtained. Figure 17 shows the forecasted net margin for the cereal enterprise in 2012 which is lower than the estimated margin in 2011 and also lower than the actual margin in 2010. The main reasons for the lower net margin in 2012, of approximately €300 per hectare can be attributed to a rise in direct costs and some overhead cost components, coupled with a reduction in yields and price levels in 2012 relative to 2011.

**Figure 17: Net Margin Actual 2010, Estimate 2011 and Forecast 2012 for the Cereal Enterprise on Specialist Tillage Farms 2008**



Source: National Farm Survey Data (2011) and Author's Estimates

#### **4.4 Economic Analysis of Non Cereal Crops**

At present the outlook for non cereal crops such as potatoes and other horticulture food and non food crops can not be examined in the same detail as cereals given the limited micro data for potatoes in the NFS. While data on potatoes is collected within the survey the sample size is not large enough to report statistically rigorous sample averages. In 2011 a new data collection process has been initiated to facilitate more in depth economic analysis of non cereal crops.

This new area of research involves collection of time series data to enable econometric analyses of price and production data for potatoes to better understand the relationship between supply and price in the national market. In addition, a new Teagasc profit monitor programme was launched for non food horticulture crops in 2011.

#### **5. Concluding Comments**

The 2010/2011 production year proved to be an improved year for tillage farmers. Reduction in global stocks led to a price increase for all cereals within Ireland and globally. Coupled with extremely good yields and modest input price inflation in key input variables, the estimated gross and net margins for cereals crops were considerably higher in 2011, than the 2010 and 2009 returns. However it is anticipated that the price of key input variables such as fertiliser, seed and land rent will increase in 2012. There is considerable volatility in the cereals market but based on futures trading prices in December 2011 and January 2012, it is assumed that 2012 harvest prices will be down on 2011 levels. In addition, yield forecasts for 2012 are also down on the yields achieved in 2011. The movements in input and output price variables are forecast to result in significant downward pressure on gross and net margins in 2012. Finally, given that volatility will remain an issue over the medium term, without risk management strategies Irish cereal farmers will continue to see fluctuations in margins into the future.

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**Table A1: Production Costs, Output and Gross Margin for Main Cereal Crops in 2010 (€/ha)**

	<b>Spring Feed Barley</b>	<b>Winter Wheat</b>	<b>Spring Wheat</b>	<b>Winter Barley</b>	<b>Malting Barley</b>	<b>Winter Oats</b>	<b>Spring Oats</b>
	Euro per hectare						
<b>Gross Output</b>	1044	1536	1191	1355	1133	1187	1139
<b>Seed</b>	65	78	80	76	75	75	76
<b>Fertiliser</b>	172	247	193	200	188	195	182
<b>Crop protection</b>	144	241	188	192	139	178	154
<b>Machinery hire</b>	106	122	110	95	124	65	114
<b>Other costs</b>	8	12	10	15	5	17	9
<b>Total direct costs</b>	497	702	584	580	530	531	536
<b>Gross Margin</b>	547	834	607	775	603	656	603

Source: 2010 National Farm Survey Data

# SITUATION AND OUTLOOK FOR FORESTRY 2011/12

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## 1. Introduction

Ireland's private forest estate is fast becoming a considerable wood and energy resource. Most private forests were established by farmers in the last 20 years and many are now entering the first thinning stage. This represents a major opportunity for farm forest owners to optimise their resources and to generate additional farm income from their forests.

Recently released COFORD (Programme for Competitive Forest Research and Development) figures show that in 2010, direct output in the forestry (i.e. growing sector; excludes the processing sector) sector was €378.1 million. For every one million euro in expenditure in this sector a further €780,000 in expenditure was generated in the rest of the economy, hence the overall value of forestry to the Irish economy was €673.0 million. Direct output in the wood products sectors (i.e. panel board mills, sawmills and other wood products sector) was €1.3 billion. The total value (direct and indirect) to the economy of the three wood processing sectors was €2.2 billion. The aggregate employment figure for the forest sector as a whole is estimated at close to 12,000 persons, the majority of whom are employed in rural Ireland. (Ni Dhubhain *et al.*, 2012).

The Irish Forestry and Forest Products Association (IFFPA) reported recently that 18 million recreational visits were made to Irish forests in 2010. This activity has been valued at €97 million, which generates €268 million in downstream economic activities for rural communities (IFFPA, 2011).

The role of the industry as a whole is increasingly recognised in the recovery of the economy. Food Harvest 2020 has set out a strong growth agenda for both the timber processing and wood energy sectors (DAFF 2010) and high production targets for wood biomass have been set by the Renewable Energy Directive. Government confidence in and commitment to forestry is clearly reflected in the 2012 funding allocation of almost €112 million - just €2 million below the 2011 funding allocation.

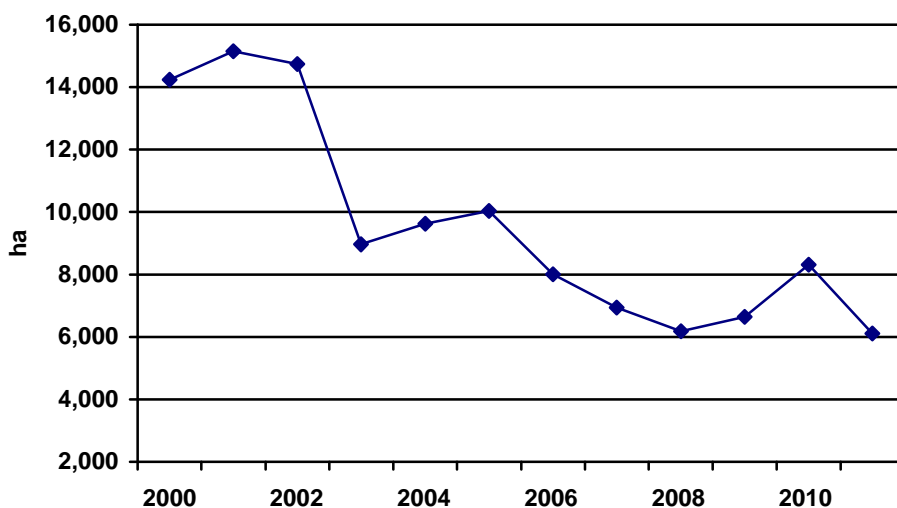
## 2. Planting in 2011

The annual planting area stabilised at just under 7,000 ha in recent years with 6,947 ha, 6,181 ha and 6,648 ha planted in 2007, 2008 and 2009 respectively (Forest Service, 2009). Figure 1 shows an increase in the level of afforestation to 8,314 ha in 2010 but the figures to end November 2011 show a decline to 6,116 ha (the equivalent period to end Nov 2010 was 7,465 ha).

The total forest area in Ireland increased to over 750,000 in 2011 and now represents just under 11 percent of the land area. Privately owned forests account for 47 percent of the total. As has been the trend in recent years, a considerable proportion of the area planted is in Munster with counties Cork and Kerry accounting for 26 percent of new planting to date in 2011 and 23 percent in 2010.

The budget allocation for forestry for 2012 allows for 7,000 hectares of new planting under the *Afforestation*, *Native Woodland* and *FEPS* Schemes, along with limited funding for support schemes.

**Figure 1: Annual Planting 2000 to 2011**



Source: Forest Service, 2011.

Restrictions on the planting of unenclosed land imposed during 2011 are likely to have contributed to the reduced planting level in 2011, coupled with ongoing restrictions due to environmental considerations involving hen harriers, pearl mussel and acid-sensitive areas.



## 2.1 Farms with Forests

Each year, the National Farm Survey (NFS) collects information on a sample of farms with forests. The sample is statistically weighted to represent the national farming population. Of the 100,000 farms covered by the survey, 7,176 farms (7 percent) have forests. The total forest area represented in the survey is almost 81,000 ha. The average ownership of over 11 ha per forest owner is considerably higher than average forest areas of 8 ha and 9 ha referred to in farm forestry studies carried out in Clare and Cork in 2006 and 2009 respectively (Purser *et al*, 2006 and 2009). An analysis of the farm system of farms with forests in the survey is shown Table 1.

**Table 1: Farms with Forests by System**

	% of farms	% of land afforested – for those that have forestry
Dairy	4.8	14.4
Cattle rearing	10.7	21.9
Cattle other	6.3	16.0
Sheep	5.5	15.6
Tillage	9.5	11.5
Mixed livestock	6.9	14.3

Source: Hennessy *et al*. 2011.

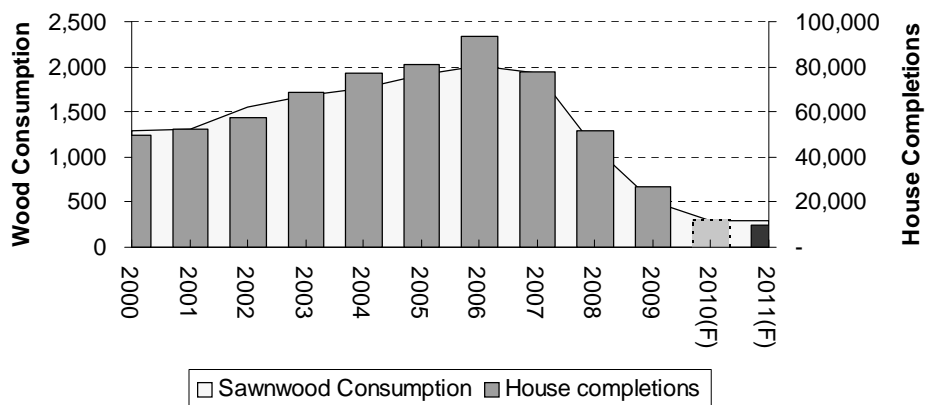
This analysis shows that the largest percentage of farms with forests is in the cattle rearing system. These farmers also have the largest percentage of their farms in forestry. This has consistently been reported to be the case in 2008 and 2009 as reported by Ryan *et al* in 2008 and 2009. A recent study conducted by Howley *et al*. (2011) used a nationally representative panel dataset collected annually between 1995 and 2009 to model both farm and farmer related characteristics affecting the probability of farmers planting land. The results concur with earlier studies as they show that larger farms and those in less intensive farm systems are more likely to have planted land over the study period.

## 3. Timber Markets in 2011

### 3.1 Domestic Market

The number of completed houses has continued to remain static in 2011, with an estimated 8,000 units completed. The continuing decline in the demand for timber for construction in Ireland is illustrated in Figure 2.

**Figure 2: Construction as an Indicator of Domestic Timber Demand 2000 - 2011**



Source: Coillte (2011)

While the demand for higher value construction timber has fallen in recent years, there is a significant increase in demand for forest based biomass and lower value firewood. In 2011 COFORD published a forecast of the increase in demand for roundwood (unsawn timber logs) on the island as a whole in 2011 and 2020, as shown in Table 2 (Phillips, 2011).

**Table 2: Estimated Roundwood Demand on the Island of Ireland 2011 and 2020**

Demand Sources	2011	2020
	<b>000 m<sup>3</sup> OB</b>	
<b>Conventional</b>	3,456	3,830
<b>Forest-based biomass for energy production</b>	1,589	3,084
<b>Residues which are used to meet energy demand</b>	-750	-876
<b>TOTAL</b>	4,295	6,038

Source: Phillips, 2011.

Wood energy use is assessed on an annual basis in order to guide national policy and to report to the Joint Wood Energy Enquiry (JWEE), which is run by the International Energy Agency and Eurostat. Eurostat is the Directorate- General of the European Commission tasked with providing statistical information at a European level. A study was undertaken recently to improve information on firewood consumption, using the Central Statistics Office’s (CSO) Household Budget Survey (HBS).

The results show that the Irish firewood market grew by an estimated 35 percent from 147,000 m<sup>3</sup> in 2006 to 199,000 m<sup>3</sup> in 2010. Further evidence of the growth in the consumption of firewood is shown by the 35 percent increase in sales of stoves in the last year (Stanley Stoves, 2011). It is estimated that almost 200,000 m<sup>3</sup> of firewood was sold in 2010, with an estimated value of €29 million, as illustrated in Table 3. The level of firewood use is significantly above previous timber harvest estimates, and ties-in with what is reported from stove retailers, and the growing level of timber harvesting from private forests. Firewood consumption in 2011 will be estimated using new HBS data. Data are currently being processed and evaluated by the CSO and will be available in early 2012.

**Table 3: Volume and Value of Domestic Firewood Market in Ireland**

Year	2006	2007	2008	2009	2010
'000 m <sup>3</sup>	147	159	171	184	199
€ million	21.35	23.03	24.83	26.75	28.80

Source: COFORD (2011b) Contributed by Eoin O'Driscoll, forestry consultant, compiler of the EUROSTAT Joint Forest Sector Questionnaire (JFSQ)

### 3.2 UK Timber Market

Sweden (43 percent), Latvia (14 percent) and Finland (12 percent) provided the majority of imports of sawn softwood to the UK in 2010. Sawn hardwood was most commonly imported from the USA (24 percent) and other non-EU countries (26 percent) as illustrated in Table 4.

**Table 4: Country of Origin of Wood Imports to the UK, 2010**

Source	Sweden	Ireland	Total EU-27
	percent		
Sawn Softboard	43	7	91
Sawn Hardboard	1	3	48
Plywood	0	1	22
Particle-board	0	43	98
Fibre-board	0	38	96
Wood pulp	14	0	43
Paper and paperboard	16	1	82

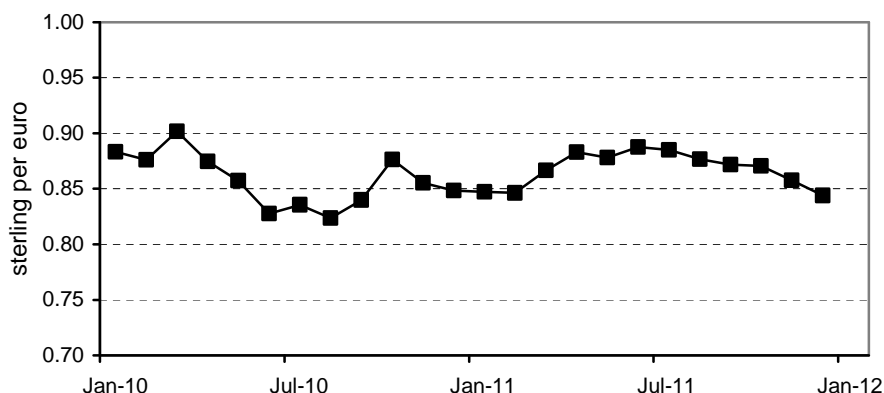
Source: UK Overseas Trade Statistics (HM Revenue & Customs), 2011.

Most particle-board imports to the UK in 2010 came from within the EU (mainly Ireland (43 percent), France (21 percent), Germany (17 percent) and Belgium (8 percent)). The EU also supplied the majority of fibreboard imports, with Ireland (38 percent), Germany (18 percent), Spain (11 percent) and Belgium (9 percent) being the principal sources.

In 2010, 5.23 million m<sup>3</sup> of softwood was imported into the UK. The UK Timber Trade Federation (TTF) National Softwood Division's (NSD) most recent forecast predicted that 2011 will be a year when import volume will be lower than in 2010. In 2011, volume is predicted to have fallen to 4.81 million m<sup>3</sup>, a decline of 8.1 percent. Modest recovery is forecast for 2012, with softwood import volume projected to increase by 3.5 percent to 4.98 million m<sup>3</sup> (TTF NSD Forecast, 2011). Ireland has currently a 5 percent share of the overall UK timber market (pers. comm. W. Fitzgerald, Enterprise Ireland, 2011).

These forecasts are supported by the NSD general sales trend survey (conducted in August 2011) which, for the second half of 2011 indicated that trading conditions would deteriorate, compared to the second half of 2010. For 2012, over 80 percent of NSD members believe trading conditions will be similar to 2011. This market is very competitive at the moment and high log prices in Ireland have led to very tight profit margins for Irish mills supplying the UK market. As in 2010 and 2011, fluctuations in the exchange rate between sterling (£) and the Euro (€) can result in almost immediate effects on the export of timber to the UK as illustrated in Figure 3.

**Figure 3: Monthly Sterling/ Euro Exchange Rate 2010 and 2011**



Source: European Central Bank.

### 3.3 European Market

Irish sawmills are exporting limited volumes of timber mainly to markets in France, Belgium and Holland. Most of the timber is in the lowest category (C16), which, when added to the increased transportation costs, has resulted in low margins for the Irish exporters.

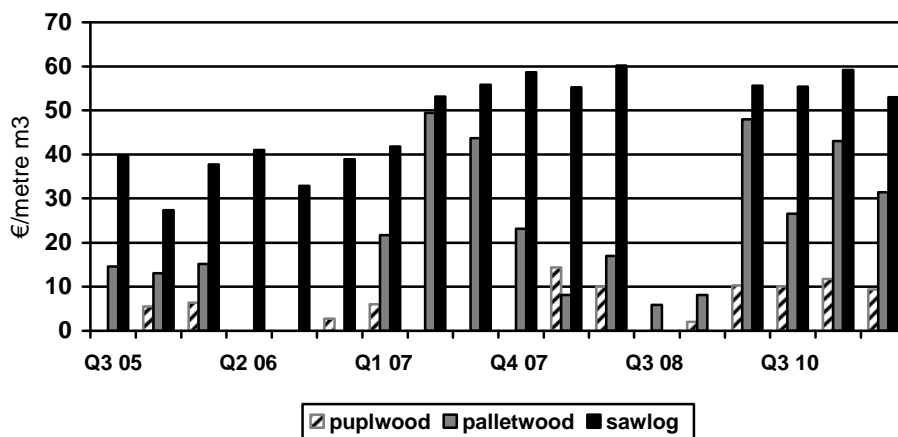
## 4. Timber Prices

### 4.1 Coillte Timber Prices

Timber prices fluctuate with demand and supply each year as is illustrated using Coillte standing timber prices in Figure 4. Coillte is the dominant supplier of logs to the processing sector which it sells through its timber sales electronic auctioning system. The standing timber price is the price paid to the forest owner by the harvesting contractor/processor for the standing timber. The contractor/processor then incurs the costs of harvesting and extraction.

Figure 4 shows the Coillte standing tree prices paid between 2002 and 2011. Timber prices are recorded in terms of 16 categories of average tree volumes. For the purpose of simplicity, a number of categories were chosen to represent typical timber assortments i.e. pulpwood (first thinning) at 0.074 m<sup>3</sup>, palletwood (second thinning) at 0.225- 0.274 m<sup>3</sup> and sawlog (subsequent thinning/clearfell) at 0.5- 0.599 m<sup>3</sup>.

**Figure 4: Coillte Standing Tree Prices 2002 - 2011**



Source: Irish Timber Growers Association Yearbook (2012).

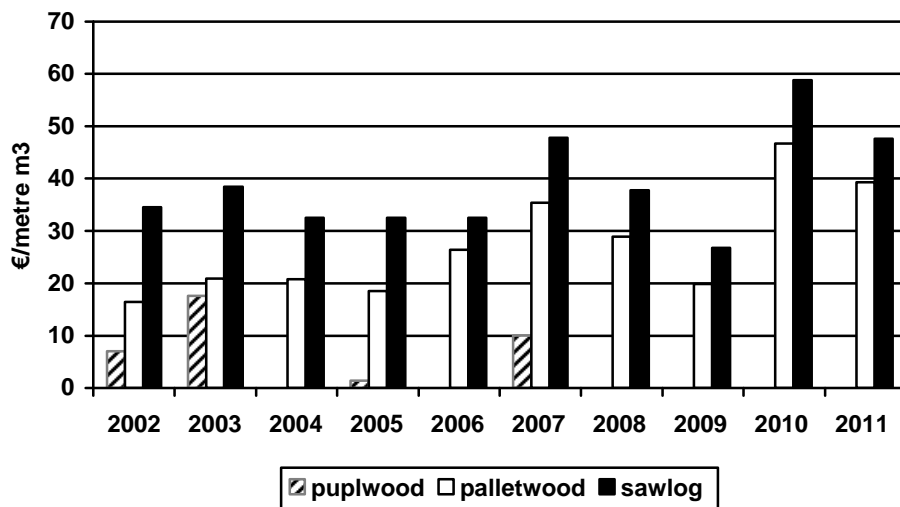
Note: The absence of data for the pulpwood category arises because Coillte used the pulpwood to supply their boardmills i.e. Smartply and Medite.

The high prices achieved in 2007, particularly in the larger tree sizes, was reflective of the increase in demand for construction timber at the height of the construction boom. Prices remained level in 2008 but dropped back significantly in 2009 as timber demand fell, in line with the shrinking domestic construction sector. By 2010, the sawmill sector had, of necessity, increased the volume of timber being exported to the UK. While timber prices have come back in 2011, they remain strong.

## 4.2 Private Timber Prices

The number of timber sales from private forestry is small compared to Coillte and as a result, Coillte’s price information is more robust than any information on sales in the private sector. Also, the Coillte prices are reflective of larger sale lots. The Forestry Department in University College Dublin (UCD) and the Irish Timber Growers Association (ITGA) collate timber price information from private sources on a quarterly basis but are totally dependent on owners to volunteer their information. These prices presented in Figure 5 are based on a much smaller sample but include pulpwood prices from the private sector which are largely absent in the Coillte figures.

**Figure 5: 2010 Private Sector Standing Prices**



Source: ITGA Yearbook, (2012).

Note: There are gaps in the data where information was not available for specific categories. Sufficient price data were not available for collation in 2009.

Demand for roundwood increased during 2010 as many sawmills and boardmills that had reduced their working week in 2009, returned to full-

time operation as the market improved. The increase in the price of sawmill residues, combined with the increase in local demand for wood chips for heating, animal bedding and out-wintering pads for cattle all led to an increase in the demand for wood fibre in general and the smaller timber size categories in particular. This led to the high prices being achieved for first thinnings (Figure 5), in turn leading to an increase in the level of harvesting carried out in 2010, in relation to previous years.

Record timber prices were achieved in 2010, particularly during the summer when prices spiked. The strong timber product prices in the UK were a factor in increased competition for roundwood (unsawn logs), leading to a rise in prices. Timber prices fell back slightly in the autumn of 2010 but have remained relatively constant in 2011. A private forest owner survey carried by the Teagasc Forestry Development Department (FDD) in October 2011 showed a slight regional variation in the prices offered for private timber sales. Prices ranged from the highest in the south east to the lowest in the north west of the country. The overall range of prices is as follows in Table 5.

**Table 5: Private Timber Sale prices as of October 2011**

Product	Length	Diameter	Standing /m3	Road side /m3
Firewood	3.1 m (varied)	Varied	€8- €12	€50
Woodchip	2-3m	5 to 14cm	€5- €7.50	€26- €28
Pulpwood	3m	7 to 14cm	€5- €7.50	€26- €28
Stakewood	1.6m	7 to 14cm	€18- €22	€36- €28
Palletwood	2.5- 3.1m	14 to 20cm+	€22- €25	€40- €43
Sawlog	4.9m	20cm+	€50- €55	€55- €64
Hurley butts	1.3m	20cm+	€250- €400	

Source: Private forest owners telephone survey by Teagasc FDD.

### 4.3 Private timber harvest 2011

The number of General Felling Licences (GFL's) issued annually can be used as an indicator of how many forest owners are considering thinning their forests. These are presented in Table 6.

**Table 6: General Felling Licences Issued (2005 to end Nov. 2011)**

Year	No. of GFL's issued to Coillte and Private Sector
2005	119
2006	303
2007	692
2008	824
2009	726
2010	2,809
<b>To end Nov. 2011</b>	<b>3,503</b>

Source: Forest Service, 2011.

The total number of licences issued increased by 7 percent from 2010 to November 2011. The figure of 3,503 GFL applications to the end of November 2011 represents an area of 134,623 ha, comprising both Coillte and private sector applications. A more accurate reflection of the current state of private timber harvesting would be to separate out the private felling licences issued from those issued to Coillte, as shown in Table 7.

**Table 7: Licences and Area Approved for Felling in 2010 and 2011**

Year		No. of licences	Thin (ha)	Clearfell (ha)	Total (ha)
2010	Coillte	1,960	3,634	10,558	14,191
	Private	849	10,382	439	10,821
	<b>Total</b>	<b>2,809</b>	<b>14,016</b>	<b>10,997</b>	<b>25,012</b>
2011	Coillte	2,466	109,786	14,770	124,556
	Private	1,037	11,395	522	11,947
	<b>Total</b>	<b>3,503</b>	<b>121,181</b>	<b>15,292</b>	<b>136,503</b>

Source: Forest Service, 2011.

To the end of November 2011, there were 1,037 licences issued for thinnings to the private sector, representing 11,947 ha, an increase of 22 percent on the number of private felling licences issued by November 2010. Licences are generally issued for a 5 year period utilisation, and the large increase in applications issued is largely accounted for by the large number of Coillte applications under their most recent 5 Year Plan. The majority of the timber harvested in Ireland each year is harvested by Coillte. Table 8 shows the annual total for 2007 to 2010. Both the Coillte and the private harvest are highest in 2007, when construction activity peaked. The Coillte



harvest for 2009 and 2010 has remained stable in the region of 2.2 - 2.3 million m<sup>3</sup>.

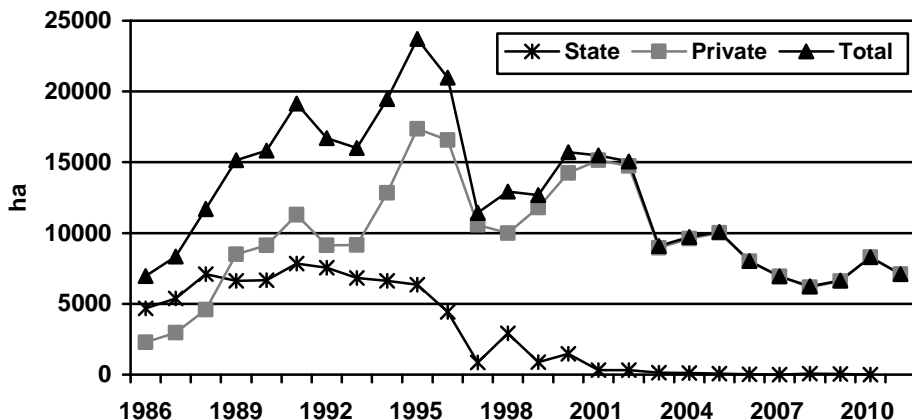
**Table 8: Annual Total Roundwood Harvest 2007-2010**

Source of timber	Irish roundwood harvest ('000 m <sup>3</sup> )			
	2007	2008	2009	2010
Log imports less exports	57	106	-63	28
Coillte harvest	2,556	2,279	2,354	2,217
Private forest harvest	390	118	130	463
Total	3,003	2,503	2,421	2,708
<b>Harvest as % of 2007 harvest</b>		<b>83.3%</b>	<b>80.6 %</b>	<b>90.2%</b>

Source: UNECE Timber Committee Market Report for Ireland 2011 (COFORD, 2011a)

It is only in recent years that the private sector has begun to make a substantial contribution to the annual harvest figures. The large volume of timber harvested in 2007 was reflective of the strong demand. This volume dropped off significantly in 2008 as timber demand fell away. There was no substantial change in the 2009 volume from the private sector. However, with a large number of mills pursuing a relatively small private timber resource, timber prices increased and the private sector responded by harvesting greater amounts of timber in 2010 & 2011. The increase in the private timber harvest is also reflective of the greater area of private forestry reaching first thinning stage, much of which was planted in the early 1990's, as shown in Figure 6.

**Figure 6: State and Private Afforestation Area 1986- 2011**



Source: Forest Service, 2010 & 2011

#### 4.4 Estimation of private sector harvest

It is extremely difficult to generate an accurate harvest volume estimate for the private timber sector as there is currently no system in place for the recording or reporting of timber volumes harvested by forest owners or by the industry. The author conducted a phone survey of the 9 large to medium sized sawmills processing timber in Ireland to estimate how much timber was being delivered across the weighbridge from privately owned forests. The results are presented in Table 9 and show the estimated volume of timber processed by the large sawmills to be approximately 232,500 m<sup>3</sup> for 2011.

**Table 9: Private Timber Delivered to Sawmills in 2011**

Source	1st thinnings	2nd & subsequent thinnings	Clearfell	Total
m <sup>3</sup>	97,522	51,995	82,960	232,477

Source: Private sawmill sector telephone survey by the authors

The timber processed by these mills is in the 14cm + category. A substantial volume of smaller timber 14cm and below is also processed into a wide variety of end uses including panelboards from pulp mills such as Smartply in Waterford and Medite in Clonmel; fencing stakes; wood chip burning boilers and CHP (Combined Heat and Power plants); and last but not least, a large proportion of the harvest ends up as firewood. The proportion of the total harvest being processed by the sawmills was estimated using unpublished net realisable volume tables from the All Ireland Forecast (COFORD, 2011b) and extrapolated to give a total harvest estimate for 2011 of 450,000 m<sup>3</sup> (Phillips, 2012).

This harvest estimate represents an overall 5 percent increase on the estimated 2010 private timber harvest (Ryan, 2011). Although the 2010 and 2011 private harvest estimates were arrived at using different data sources a comparison of the percentage of the harvest in each category shows strong growth in the volume of thinnings from private forests. The majority (64 percent) of the private timber processed in 2011 was from first and subsequent thinnings, as shown in Table 10. In 2010, 60 percent of the estimated timber harvest was in the clearfell category due to the particularly high prices that prevailed at the time. It is estimated that this has fallen off to 36 percent in 2011.

**Table 10: Estimated Private Timber Harvest in 2010 and 2011**

	% of 1st thinnings	% of 2nd and subsequent thinnings	% of clearfell
2010 estimate*	31	9	60
2011 estimate	42	22	36

Source: Private sawmill sector telephone survey by authors, \* Ryan (2011)

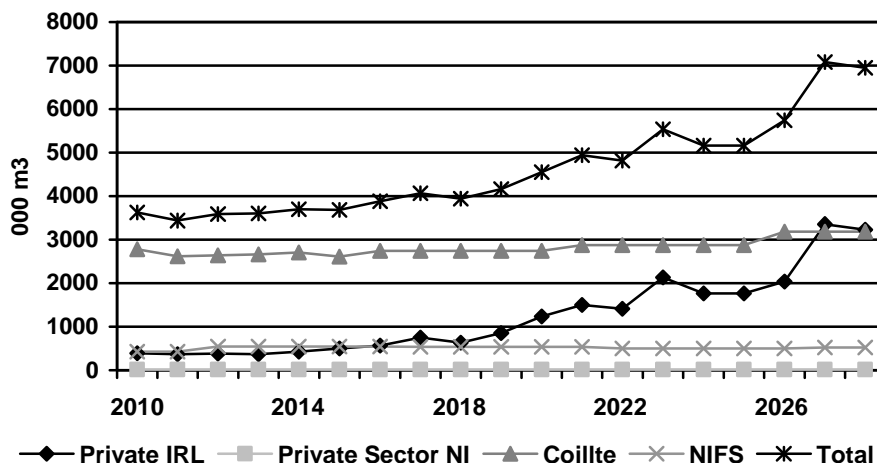
The continuing strong price achieved for the palletwood category is a factor in the increasing private forest harvesting levels, especially at first thinning stage. As the price for sawlog has decreased in 2011, the area of clearfell harvest has also decreased.

## 5. Factors influencing timber supply and demand

### 5.1 Long term supply & demand

Overall timber demand not only includes biomass for renewables but also for conventional demand for the timber processing sector as was illustrated previously in Table 3. Demand in 2020 is predicted to have increased by 1.7 million m<sup>3</sup>. This is a huge increase and meeting this will pose an enormous challenge.

**Figure 7: Forecast of Total Net Realisable Volume Production to 2028**



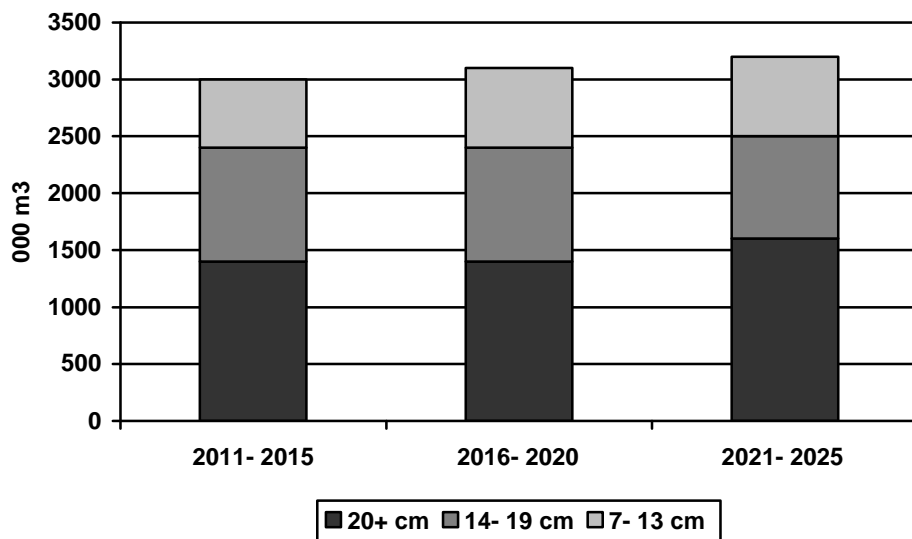
Source: All-Ireland Roundwood Production Forecast 2011-2028 (COFORD, 2011b)

COFORD recently updated the timber supply forecast to 2028 for the entire island of Ireland, to include both private and public forests. The total net

realisable volume (the estimated roundwood volume that will potentially be available to the end user) increases from 3.44 million m<sup>3</sup> in 2011 to 6.95 million m<sup>3</sup> in 2028. The volumes available within the Republic of Ireland (ROI) are estimated to double over the forecast period (Figure 7).

As can be seen from Figure 7, any real increase in the timber volume produced in Ireland to 2028 will involve the mobilisation of the private forest timber resource. The Coillte Roundwood Supply Forecast 2011- 2025 indicate that the Coillte harvest volumes will remain almost static over the next ten years with a small increase in the period 2021 to 2025, as illustrated in Figure 8.

**Figure 8: Coillte Roundwood Supply Forecast 2011-2025**



Source: Coillte Roundwood Supply Forecast 2011

Note: The Coillte Roundwood Supply Forecast 2011- 2025 is presented in three roundwood size categories or top diameter classes. These are 7-13cm, 14-19cm and 20cm+.

The Coillte forecast predicts an increase in the thinning volume and a decrease in the clearfell area and volume in the period 2021- 2025 for the Coillte timber resource.

While the national forecast area available for thinning is estimated to double from 23,700 ha in 2011 to over 50,300 ha per annum by 2022, the largest increase will have to come from the private forestry resource. The scale of first thinning in the private sector is forecast to average 6,000 ha per annum over the next decade. However, because of access difficulties for some of

the privately owned forests, it is likely that this area will be revised downwards slightly (Phillips, 2011).

## **5.2 Carbon Sequestration**

Forestry has significant potential to sequester carbon dioxide, thereby offsetting Green House Gas (GHG) emissions from other sectors of society and contributing to climate change abatement. Forestry can contribute to GHG abatement through a range of measures and these measures have a potential impact on the forestry sector as follows:

### **Afforesting Land**

COFORD has indicated that afforestation above 7,500 hectares per annum is required to maintain our forests as a net carbon sink. Research suggests that the national carbon sequestration potential of forestry will temporarily fall sharply after 2035. This reduction reflects the substantial decline in afforestation rates after 1997. (Hendrick and Black, 2009).

### **Forest Management**

Continuous cover forestry systems, normalising the age class distribution and the practice of sustainable forest management will impact on the harvestable area and volume available.

### **Optimising Forest Productivity**

Targeted species selection offers the potential to optimise afforestation schemes in order to maximise their carbon sequestration potential. For example, average growth rates for Sitka spruce (*P. sitchensis* Bong. Carr) can be increased from 17 to 21 m<sup>3</sup> ha<sup>-1</sup> yr<sup>-1</sup>, by planting trees on land with some form of previous agricultural usage (Farrelly *et al.*, 2009).

### **Using Forest Products for Generation of Bioenergy**

The use of wood as a source for generation of electricity has increased considerably in recent years and this is set to continue as the 2015 target for 30 percent co-firing at the midlands power stations approaches. In order to meet this target, the three power stations combined would need 900,000 tonnes of wood per annum.

## **5.3 Climate Change Negotiations – Durban 2011**

At the recently concluded Durban climate change conference, new carbon accounting rules were agreed. The rules will apply under a second commitment period of the Kyoto Protocol, which will run from 2013 to the end of 2017 or 2020, whichever is agreed in the coming year. Accounting for pre-1990 forests now becomes mandatory on the basis of a projected reference level approach for most parties. The reference level is the

estimated net carbon stock change over the period to 2020, based on business-as-usual harvest and growth levels in all managed pre-1990 forests. Increased levels of harvest in pre-1990 forests over and above those in the reference level will result in debits at the national level.

Following the Durban agreement on the Land Use, Land Use Change and Forestry (LULUCF) rules, the European Commission is due to begin inter-service consultations on its proposed Communication on LULUCF and the Effort Sharing Decision. Discussions with Member States are likely to begin in early March 2012. (COFORD, 2011c)

#### **5.4 Renewable Energy Market**

The current driver for policy in renewable energy is the European Renewable Energy Directive (2009/28/EC). This policy document sets out targets for 2020 on an EU basis. The target for Ireland is for renewable sources to account for 16 percent of gross final energy consumption. To this end, the government has set targets of 12 percent heat and 40 percent electricity to come from renewable sources by 2020. Forestry has a significant role to play in meeting both of these targets.

It is inevitable that demand for small assortments from forestry thinnings and wood waste products will increase over the next 8 years. As there may also be limited scope for the importation of biomass due to other EU countries attempting to meet similar targets, it is important that domestic supply is maintained and increased. The SEAI estimated that the planting of 10,000 ha per annum from 2008 to 2035 would make wood fuel a sustainable alternative and yield 4.5 Petajoules from 2030 onwards. Since a significant part of wood fuels are derived from the thinning of young forests, the availability of indigenous wood fuel is also dependent on maintaining afforestation levels.

In November 2011, the government announced REFIT 3 which is a supporting price structure for bioenergy in electricity generation. The technologies supported, which are of relevance to the forestry sector, include biomass combined heat and power (CHP) and biomass combustion incorporating provision for co-firing at the three peat-powered stations. The REFIT 3 scheme means to provide a guaranteed price for fifteen years of between 8.5 cent and 15 cent per kilowatt hour for electricity generated from renewable energy sources and exported into the national grid. It is intended that this will pave the way for the connection of an additional 310MW of renewable energy to the national grid. This would result in emissions savings of approximately 0.25 Mt CO<sub>2</sub>eq due to fossil fuel displacement.

## **5.5 Forest Certification**

Certification of timber from sustainably managed forests is fast becoming a pre-requisite for sale of processed timber into many timber outlets, particularly in the UK. In Ireland, there are currently two certification initiatives, under the auspices of the Programme for the Endorsement of Forest Certification (PEFC) and the Forest Stewardship Council (FSC). Most of the major Irish sawmills are certified and so require 70-80 percent timber from certified sources. These sources are viewed as environmentally appropriate, socially beneficial and economically viable. The remaining 20-30 percent must come from “legal” forests. In PEFC terminology this is “non-controversial” forests; in FSC terminology this is “controlled” forests.

It is believed that the FSC Forest Management Standard for the Republic of Ireland will be fully endorsed by early 2012 (Tony Mannion, FSC Ireland, 2011). Similarly, the PEFC Irish Forest Certification Standard has been recommended for endorsement to its members by the PEFC Board of Directors. Endorsement will mean that forest owners can then apply to have their forests certified in accordance with PEFC Irish Standard (Merivale, PEFC Ireland, 2011).

To date, certification has not been a major issue for private forest owners. However, as the private forests’ contribution to the national yearly harvest increases, certification is likely to become an issue. Meeting certification standards involves chain of custody recording and compliance with environmental and social principles. There are already a number of companies offering certification services to individuals and groups.

## **6. Outlook for 2012 and beyond**

COFORD has indicated that afforestation above 7,500 hectares per annum is required to maintain our forests as a net carbon sink and to capitalise on the potential of forestry to offset Green House Gas (GHG) emissions. While funding has been approved for 7,000 ha of afforestation for 2012, the reduction in planting in 2011 could continue into 2012. Concerns have been expressed by forest owners as to the security of the forest premium payment and uncertainty over proposed changes to the Common Agricultural Policy (CAP) may be contributing to reluctance by farmers to commit to long term land use decisions.

The recent COFORD supply and demand studies forecast significant medium-term shortfalls in wood fibre to meet the demands of our export driven timber processing sector. Timber from first thinnings is likely to be the major component of the growing demand for wood biomass. It is

important that appropriate thinning is conducted on suitable plantations which were established since the introduction of forest grants in 1989, as we achieve emissions savings and approach the renewable target deadline of 2020.

Trading conditions remain difficult for Irish timber processors who are largely dependent on exports to the UK, leaving them exposed to uncertain prices due to fluctuating exchange rates. However, demand at regular Coillte timber sales remains strong and competitive prices are currently being paid.

The volume of timber harvested from thinnings in privately owned forests has increased from 40 percent of the total private timber harvest in 2010 to 64 percent in 2011. In contrast, as prices have fallen back in 2011, the volume of clearfell timber has reduced from 60 percent in 2010 to 36 percent of the total private timber harvest in 2011.

Prices being paid for first thinnings continue to be buoyed by the more valuable palletwood segment of the harvest. Reduced availability has kept the price of palletwood at a high level. As the area and volume from second & subsequent thinnings increase, the supply of palletwood timber will also increase. This is likely to result in some downward pressure on overall timber prices over the next few years.

Good timber prices will always be paid for forests that have good quality timber, road access, proximity to markets, good management and an economically advantageous plantation size. The market for firewood is growing rapidly, creating business opportunities for farm forest owners.

There is a growing awareness of the need to mobilise timber from the private sector to meet growing demand. All sectors of the industry are becoming more involved in mobilising timber harvesting. However, few forest owners have inherited any knowledge of forest harvesting and timber marketing and many privately owned forests are small with poor access. Forest Owner Groups are seen as one solution to private forest sites that do not have all of the advantages of scale & location.

There are currently 25 Forest Owner Groups operating with the support of Teagasc in the country. Teagasc, in co-operation with all sectors of the forestry industry, is seeking to mobilise the private forest thinning resource through dissemination of research, training and the building of familiarity with and confidence in the harvesting and marketing of the timber resource.



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