

Situation and Outlook

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Introduction

This mid-year update is a supplement to the annual Situation and Outlook published by Teagasc in December 2015. It begins with a summary of current economic conditions, looking at the international macroeconomic picture, recent exchange rate developments and movements in energy prices. It then provides a summary of the developments that have taken place in commodity markets in the first half of 2016. Finally, there is an assessment of the performance of the main farm systems in that period.

The report then takes a short term outlook perspective to year end, assessing likely future developments and how they would influence commodity prices, production costs and farm profitability.

Across the various farm sectors, access to timely official data on production, output prices and inputs costs, remains a challenge across the EU. Official data sources tend to lag behind the actual market situation by three months and more in some cases. It is therefore necessary to rely on unofficial data sources, industry expertise and even anecdotal evidence to form an up to date assessment of the market situation.

In this publication the situation and outlook is summarised. For each commodity sector, production, consumption, output price, input market developments and income are assessed and given a positive, neutral or negative ranking.

This exercise is carried out in respect of the *Situation*, representing the first half of 2016, and the *Outlook* representing the second half of 2016. The categorisation is performed with respect to the farmer's perspective on the impact of market price, supply and demand developments on farm profitability.

The categorisation takes account of the position in the previous period. So for example a fall in milk prices in the first half of the year in comparison with the same period in

the previous year would be categorised as a **negative** situation.

However, if milk prices were anticipated to rise in the outlook period relative to the same period in the previous year this would be described as a **positive** outlook.

Examples of positive developments would include:

- A rise in output prices
- A fall in inputs prices
- A decrease in international supply
- An increase in international demand
- Favourable weather conditions
- A weaker domestic exchange rate



Conversely, examples of negative developments would include:

- A fall in output prices
- A rise in inputs prices
- An increase in international supply
- A decrease in international demand
- Poor weather conditions
- A stronger domestic exchange rate



Where either the situation or the outlook suggests no change relative to the corresponding period in the previous year, this is categorised as **neutral**.





Finally, where it is either too early to make an informed judgement or where there is a deficit of the necessary data on which a judgement should be made, it may not be possible to determine whether a positive, negative or neutral symbol should be used. Such instances are represented by a question mark.



This approach is designed to highlight the key market developments that have recently taken place and that are likely to take place in the short term and to highlight if necessary key uncertainties regarding the short-run outlook. The associated information is then distilled down to a series of summary tables.

Commodity Sector Summary



| Dairy | |
|---|---|
| Situation | Outlook |
|  Negative |  Negative |

PRODUCTION: Irish milk production was up close to 10% in H1 2016 relative to H1 2015. Low milk prices may temper milk production growth in H2. An annual increase in Irish milk production of 7% in 2016 is possible, with considerable regional and farm level variability around that figure.

PRICES: Irish milk prices fell through the first half of 2016 due to continuing weak international dairy prices in an oversupplied market. While dairy prices have now stabilised and demand is recovering, high stock levels may slow the price recovery in the coming months. Any late season price improvement will have a limited impact on the annual average price, given the seasonal milk production profile.

COSTS: In H1 2016, feed, fertiliser and energy prices have decreased. Feed use has increased, but overall production costs are down. Efficiency gains on expanding farms will further reduce cost per litre.

MARGINS: Net margins in 2016 will be down by 60% to 80 % on the 2015 level.



| Beef | |
|---|---|
| Situation | Outlook |
|  Negative |  Negative |

PRODUCTION: Irish beef production has so far increased by about 4% in 2016, reflecting greater prime cattle availability.

PRICES: 2015 was a good year for Irish cattle prices, 2016 is unlikely to see a repeat. Weaker demand growth in continental EU and UK markets and a weaker pound sterling are likely to be reflected in lower EU and Irish cattle prices over the course of 2016.

COSTS: Costs of production are likely to decline in 2016, mainly due to lower feed, fertiliser and fuel prices. Changes in input usage volumes are unlikely to be key drivers of changes in costs of production.

MARGINS: Lower market prices for young and finished cattle will reduce the value of output, but this decline will be partially offset by reduced costs of production in 2016. Gross margins on Cattle Finishing and Cattle Rearing farms look like being down by up to 10% on 2015 levels.



| Sheep | |
|---|---|
| Situation | Outlook |
|  Negative |  Negative |

PRODUCTION: In 2016 EU and Irish lamb supplies are forecast to increase. With the increase in supply unlikely to be matched by improvements in demand for sheep meat, the outlook for EU and Irish heavy lamb prices is negative.

PRICES: In 2016 the competitiveness of Irish lamb exports in the UK market (and against UK lamb on French markets) was undermined by Brexit related weakness of the pound sterling against the euro.

MARGINS: With declining lamb prices and lower input costs in 2016, profit levels in Irish sheep production should be slightly below those achieved in 2015.

Gross margins on mid-season lowland lamb enterprises are forecast to be 4% lower than those recorded in 2015.

| Tillage | |
|---|---|
| Situation | Outlook |
|  Negative |  Negative |

PRODUCTION: In Ireland growing conditions to mid July 2016 have meant that yields this year are likely to be well back on the record yields achieved in the last two years. However, it is still early days in the harvest and it is difficult to gather hard evidence on likely yields.

PRICES: Another record year of global cereal production is creating downward pressure on likely prices at harvest 2016. Prices quoted at present represent at least a 10 per cent decline over harvest prices in 2015.

COSTS: Production costs in 2016 are likely to be slightly less than 2015 costs, at about 2 per cent.

MARGINS: A significant deterioration in margins is likely in 2016 given that prices and yields will likely be lower than in 2015. Based on yields and prices declining by 10 per cent coupled with costs declining by 2 per cent, it is estimated that family farm income on specialist tillage farms could be as low as €20,000 in 2016.

Global Economy

The global economy remains in a period of uncertainty with contrasting prospects evident between commodity exporting and commodity importing countries.

Low prices for oil, metals and agricultural commodities have adversely affected growth in emerging and developing countries. Brazil and Russia remain in deep recession.

By contrast these low prices have benefitted countries importing those commodities. Growth in the Eurozone remains more sluggish than in the UK or US. The outcome of the Brexit vote has created added uncertainty about prospects for growth in the EU.

Macro Economy

The US and the UK continue to be among the best performing developed economies in recent years. However, the outcome of the Brexit vote has caused sterling to depreciate strongly against the US dollar and to a lesser extent against the euro, with considerable uncertainty now hanging over the UK's future trading relationship with the EU. More generally across Europe the continuing weakness of the Russian economy will be a drag on growth. Security concerns and the increased number of terrorist related incidents are also a concern for economic growth prospects in Europe.

Wider concerns remain in the EU relating to the performance of some of the economies

in Southern Europe.

Economic growth in China continues to slow down in line with weaker international export demand. Growth is likely to fall to 6% in the short term.

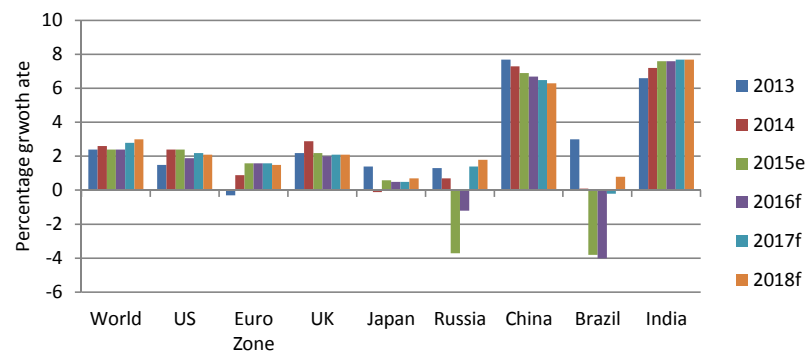
Growth in India is forecast to remain more robust and to surpass China's growth rate in the short term. South Asian economies generally have been beneficiaries of the low oil price and low inflation generally. Economic growth in Japan is projected to remain among the lowest in the developed world.

Brazil's current economic difficulties mean that economic growth in Latin American countries generally has slowed. The region as a whole is currently in recession and is not projected to return to growth until 2017.

Despite the low level of oil prices, economic growth rates in the Middle East are expected to improve, partly on account of Iran's improved economic situation, now that sanctions have been lifted.

Actual and projected GDP growth rates for selected regions of the world are shown in Figure 1.

Figure 1: Annual Real GDP growth rates and forecasts



Source: World Bank (June 2016)

Exchange rates

Recent months have seen relative stability in the exchange rate between the euro and the US dollar. However, both currencies have recently appreciated against sterling.

In contrast to preceding years, the euro has moved over a relatively narrow range against the US dollar over the last 18 months, dipping to a monthly low of \$1.08 against the euro in March 2016 and a high of \$1.13 in April of 2016.

The decision to hold a referendum on UK membership of the EU in June 2016 led to a weakening of sterling against the euro and the US dollar through H1 of 2016. Once the outcome of the referendum was known sterling weakened further against both of these currencies. Sterling reached its lowest value against the US dollar since the 1980s.

The weakening of sterling reflects uncertainty about the future economic growth prospects of the UK, which are tied to the terms of the Brexit deal that it will now need to negotiate with the EU. This could lead to impediments to trade and the movement of labour between the EU and UK which would be damaging for UK economic growth. At the same time the UK government is determined to negotiate trade deals with other parts of the world which it sees as benefitting its long term economic growth prospects. Sterling weakness is likely to persist until there is

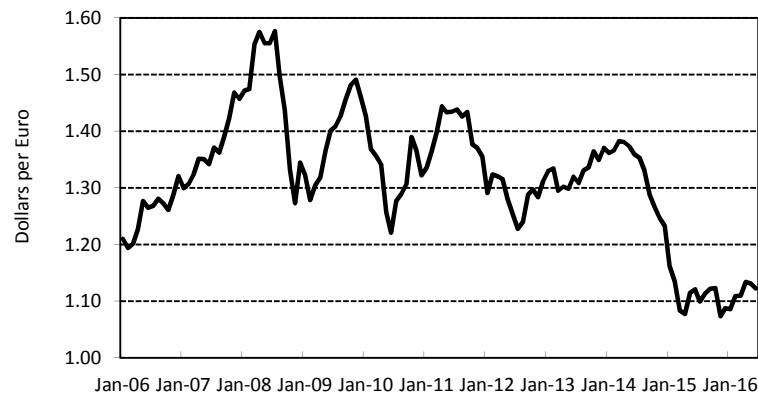
greater clarity as to the outcome of the Brexit negotiations.

The ECB remains cautious about the Eurozone's economic recovery. Inflation and economic growth remain quite low in the Eurozone and with interest rates at zero, there is little further scope for conventional monetary policy to lower interest rates so to produce inflation and spur investment and consumer spending. The official position of the ECB is that interest rates will remain low for an "extended period".

Uncertainty continues over the Greek economy. Greece has been the main factor weighing down the euro, but there are some suggestions that the worst may be over. It is worth noting that the Greek economy has contracted by 27% since the crisis first emerged in 2008.

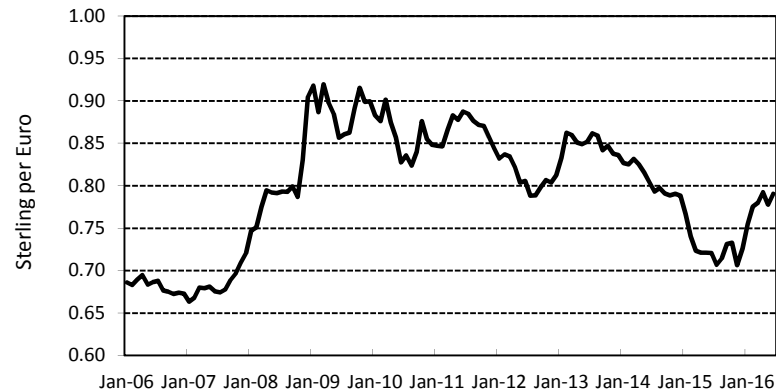
Exchange rates are important in that they impact on the price of Ireland's exports and imports. Much of Ireland's agri related trade is denominated in non-euro currencies. The recent weakness of sterling is a negative for Irish agri-food exports making them less competitive on the UK market.

Figure 2: Euro/Dollar Exchange Rate



Source: European Central Bank

Figure 3: Euro/Sterling Exchange Rate



Source: European Central Bank

Energy Market

While fuel and electricity are less significant input items than feed and fertiliser in grassland and tillage systems, the price of energy has implications that extend throughout the economy, given the importance of energy as a cost item in the production and distribution of goods.

The world has seen a glut of oil over the last 2 years with supplies far outstripping demand and leading to the lowest crude oil prices in over a decade. The decline in oil prices, which began in the middle of 2014, does not show signs of any rapid reversal.

Natural gas prices have also fallen but it has taken a long time from the price reductions observed in the crude oil market to filter through to the natural gas market in Europe.

Brent crude oil prices continued to fall through H2 of 2015 and reached a monthly low point of \$30 per barrel in January 2016 as illustrated in Figure 4. Since then prices have recovered considerably and are now close to \$50 per barrel. Set against the high prices observed through much of the period from 2008 through to H2 2014, the current oil price remains quite low. The emergence of non-conventional fossil fuel extraction technologies, such as fracking, has made it possible to recover previously uneconomic oil and gas deposits. Fracking has also increased the exploitable capacity of fossil fuel deposits which previously would have only been extracted through conventional means. In short fracking

means that the world now has more access to oil than would have been expected even five years ago.

Oil exporters whose oil production had previously been limited for geopolitical reasons have also increased production.

It has taken longer for the surge in oil supplies to dissipate. US production is now slowing a decline, but only after having built up a significant stock pile.

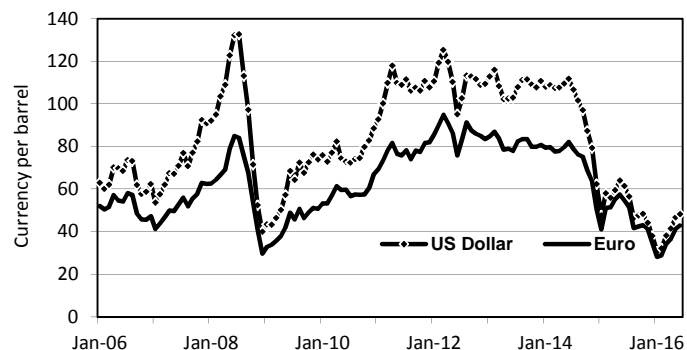
OPEC continues to try to defend its share of the global oil market and therefore has chosen to maintain production and ensure low prices rather than cut production to stimulate a price rise.

Lower oil prices have benefitted oil importing regions globally such as the US, EU and Asia and have been a negative for oil dependent exporters, who have seen their oil revenues drop substantially.

While natural gas prices in the US have fallen substantially as oil prices began to fall, the decline in natural gas prices in Europe was much more gradual, as illustrated in Figure 5. This slow rate of decline was due to the duration of fixed price gas contracts in European natural gas markets.

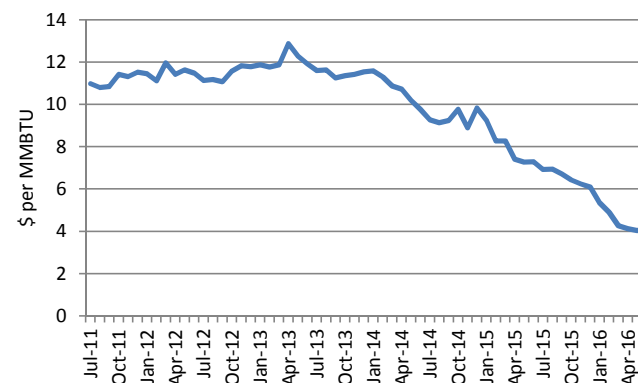
Expectations are that oil prices will remain relatively stable over the short term and that a recovery in prices to the \$100 dollar level will take a number of years.

Figure 4: Brent Oil Prices in Euro and US Dollar Terms









Source: Adapted from the St Louis Fed

Figure 5: European Natural Gas Average Import Price



Source: World Bank

Inputs Market Summary

| Feed | | Fertiliser | | Energy | |
|---|---|--|--|---|---|
| Situation | Outlook | Situation | Outlook | Situation | Outlook |
|  Negative |  Neutral |  Positive |  Positive |  Positive |  Neutral |
| <ul style="list-style-type: none"> Grass growth conditions have not been as favourable, as in the excellent conditions found in 2014 and 2015. A mild winter was followed by a cool spring with poor grass growth observed in the month of April. Feed use on the dairy side in particular looks to have been elevated in Q2. By contrast feed use on beef farms appears to have been more stable in H1 2016. Indications are that so far in 2016 aggregate dairy feed use is up, in part due to the larger dairy cow numbers, than in the same period in 2015. By contrast beef feed use in the first half of 2016 seems to be relatively stable compared with the same period in 2015. This likely reflects the numbers of cattle on feed in 2016. Feed prices have been stable the first half of 2016, compared with the same period in 2015. Feed prices through the second half of 2016 will depend on global grain supply and demand conditions. Early indications of the global harvest potential suggest that little price movement is likely. | | <ul style="list-style-type: none"> In spite of the fall in oil prices from autumn 2014 onward, European gas prices were slow to adjust downwards to the lower price energy market. However, gas prices in Europe have fallen considerably over the last 18 months. In US dollar terms, international nitrogen fertiliser prices have also decreased considerably over the last 12 months. Prices for fertiliser in Ireland are now down about 15% on their level in summer 2015, with a further reduction in prices a possibility. However, with much of the purchasing activity for 2016 already complete, any further price reduction is more likely to be of benefit in 2017. While only a limited amount of data are available to date, it would appear that fertiliser utilisation rates in Ireland for the 2016/17 fertiliser year are down over 10% on usage levels in 2015/16. There is a considerable lag in the availability of the quarterly official data, so precise sales levels will not be confirmed until late autumn. | | <ul style="list-style-type: none"> Continuing low oil prices, relative to the average level over the last decade, have been a feature of 2016. Prices dropped as low as US\$ 30 per barrel, in January 2016, but have now recovered to close to US\$ 50 and seem to have settled in this territory. Farmers have seen a fall in fuel prices of over 10% over the last 12 months. | |

Weather Conditions

From an agricultural perspective, weather conditions in 2015 were regarded as exceptionally good – anecdotally among the best in living memory – and surpassing the very favourable weather conditions observed of 2014. It follows that expectations for 2016 would be for a reversion to more normal conditions which would not be as favourable to grass growth as the previous two grass growing seasons.

Deviations in the spring air temperature relative to normal are shown for a range of locations in Figure 6. Spring 2016 was cooler than normal in the four Teagasc locations reported here. This shows that spring temperatures were as much as 0.5 degrees below normal in some locations and close to normal elsewhere.

As shown in Figure 7, cumulative rainfall amounts in the East (Grange) were slightly above normal. While in the South (Moorepark) and the Midlands (Oak Park) rainfall amounts were slightly below normal. Rainfall amounts in the West (Athenry) showed the greatest deviation from trend and were 23% below normal.

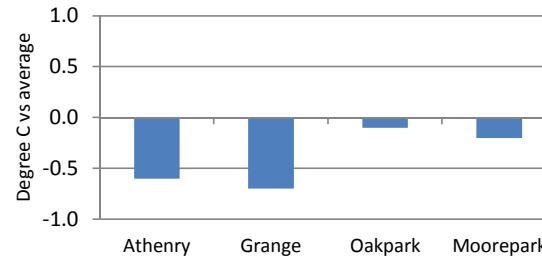
Figure 8 shows grass growth data from Pasture Base Ireland for 2014, 2015 and 2016. Overall, weather conditions in the first half of 2016 have been less favourable for grass growth than in either of the previous two years. Grass growth improved considerably in May 2016, but has reverted to a more normal level since then.

Overall, it can be said that weather conditions in Ireland in the first half of 2016 have been close to normal, but less favourable for grass growth than in either of the two preceding years.

To date in 2016, conditions in the UK have been broadly similar to those in Ireland. Looking across the continental Europe, conditions so far this year have been wetter than normal in much of Southern and Eastern Europe, making for better than average pasture conditions.

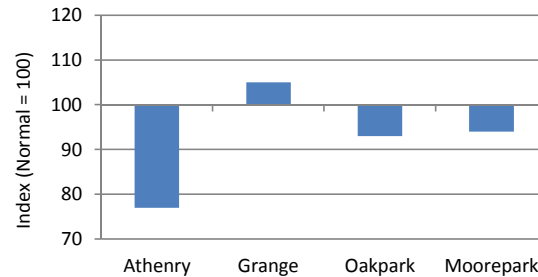
Note: Normal weather is defined as the 30 year average from 1981 to 2010.

Figure 6: Spring 2016 Mean Temperature Relative to Normal (1981-2010)



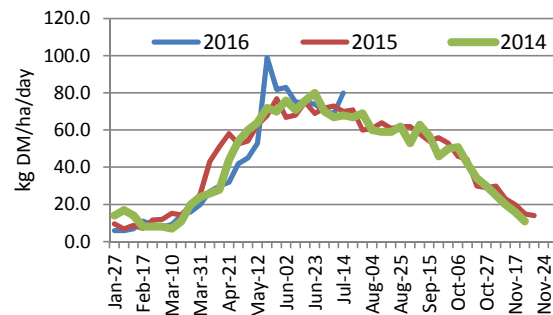
Source: Met Eireann

Figure 7: Spring 2016 Rainfall Relative to Normal (1981-2010)



Source: Met Eireann

Figure 8: Irish Grass Growth 2014, 2015 and 2016



Source: Teagasc Pasture Base Ireland

Feed Market

The outturn for 2015 showed that feed use on grassland enterprises in Ireland increased considerably in volume terms. However, this can be largely explained by the increase in feed use on dairy farms, driven by the growth in dairy cows numbers associated with milk quota removal. Based on DAFM and CSO data, dairy feed use per head in 2015 was about 930 kg per cow, an increase of 8% on the previous year. Beef feed usage per head remained relatively static in 2015.

As of July 2016, official data on feed use in 2016 are limited, with DAFM sales data reported for just Q1 only. These data shows that aggregate dairy feed sales in Q1 2016 were relatively unchanged on the 2015 level. However, unofficial feed industry data for April indicates that aggregate dairy feed sales increased substantially in that month due to poorer grass availability. Feed sales in May were considered to be closer to normal. Overall, given the growth in the dairy cow herd, feed use per head in the year to date is likely to be on a par with last year.

By contrast aggregate beef feed sales declined in Q1 of 2016 by 5%, marking the lowest level of beef feed sales in Q1 since 2012.

Unofficial data up to the end of May put year to date aggregate beef feed sales more or less on a par with the same

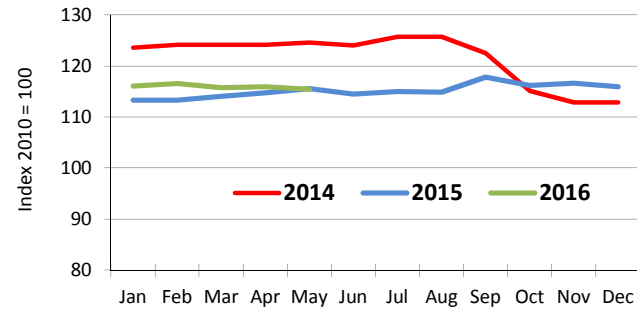
period in 2015.

As shown in Figure 9 and Figure 10, feed prices have been declining slowly the 12 months to May of 2016. Anecdotally there has been a further weakening in feed prices in recent weeks.

Feed prices for the rest of 2016 will be contingent on the size and quality of the harvest. Following two excellent years, Irish cereal yields are likely to be lower in 2016. However, international supply and demand conditions are of greater relevance in determining this season's Irish harvest prices and resulting feed prices. In Europe current expectations are for a reasonably good wheat and barley harvest, although specific concerns are emerging regarding France and the UK.

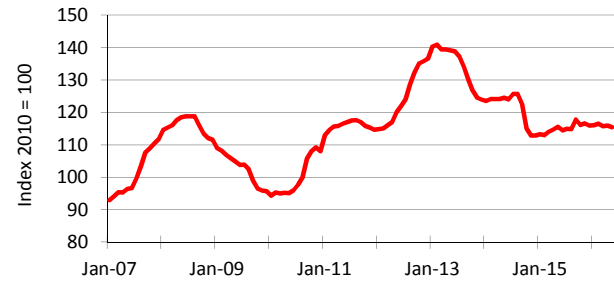
Taking a more global view, it is still too early in the year to be fully confident, but it would appear that the global harvest will represent a further 1 to 2 % increase on the 2015 level. This may create some downward pressure on price in latter parts of H2. For the year as a whole, downward movement in feed prices may not be significant.

Figure 9: Index of Monthly Irish Feed Prices 2014, 2015 and 2016



Source: Central Statistics Office

Figure 10: Longer Term Index of Monthly Irish Feed Prices



Source: Central Statistics Office

Fertiliser Market

The dramatic fall in oil prices which began in September 2014 created an expectation for an associated fall in natural gas prices and ultimately cheaper nitrogen based fertilisers.

However, the transmission of lower prices across these interconnected markets has been a slow one, largely because of the extent of forward contracting of prices that is a feature of these markets and the fact that the collapse in oil prices had not been anticipated in the futures market.

Over the last 12 months the fall in oil prices has brought about a considerable reduction in natural gas prices in Europe, which ultimately has reduced the cost of producing nitrogen based fertilisers. It has taken longer still however for wholesale fertiliser prices to drop. In turn the price of fertiliser at the farm level has only begun to decline in 2016.

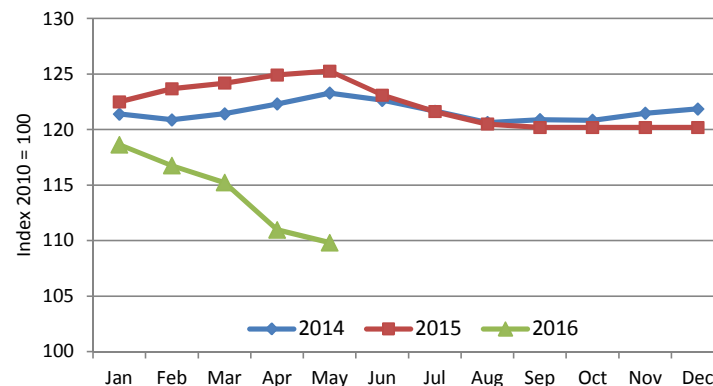
Official price data are shown in Figure 11 and these are only available up to May of 2016. These data put the price decrease in the period since January at close to 10%. Anecdotally, as the fertiliser sales season drew to a close in June and July, CAN prices have fallen. For 2016 as a whole, fertiliser prices are likely to be down more than 10% on the 2015 level.

However, traders who may have bought fertiliser stock at higher prices will be keen to ensure that they retain a profit margin on sales over the rest of the year and this may limit a further reduction in prices. In any event, the bulk of the fertiliser purchasing at farm level for 2016 is complete at this stage.

The full benefit of lower fertiliser prices may therefore be felt in the 2017 production season rather than this year.

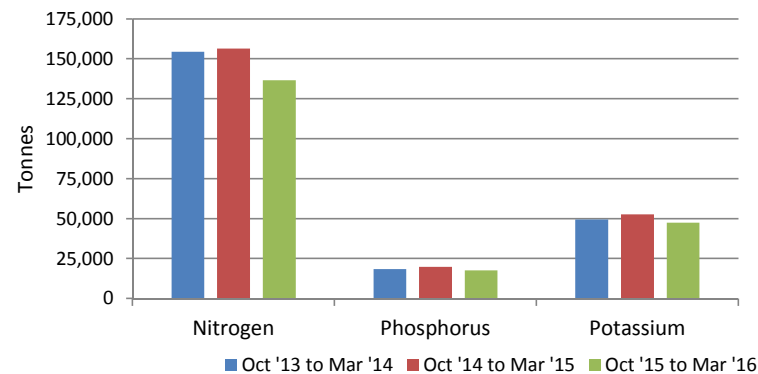
In terms of fertiliser sales in Ireland, the available official data covers the first 6 months of the fertiliser year (Oct 2015 – Mar 2016). For this 6 month period Figure 12 shows a 12% decrease in nitrogen sales, an 11% decrease in phosphorous sales and a 10% decrease potassium sales, relative to the same period in 2014/15.

Figure 11: Index of Monthly Irish Fertiliser Prices Jan. to May 2016, 2015 & 2014



Source: Central Statistics Office



Figure 12: Irish Fertiliser Sales in first 6 months of Fertiliser year



Source: Central Statistics Office



Dairy Market

Global Supply

| Situation | Outlook |
|---|--|
|  Negative |  Neutral |



- Global milk production grew strongly in 2014, and also in 2015 despite falling milk prices.
- The strong increase in milk production in Ireland since milk quotas were lifted has continued in 2016.
- Strong production growth is also evident in Italy, the Netherlands, Germany and Poland.
- With production set to slow down over the rest of the year, EU production in 2016 is expected to be about 1% to 2% higher than 2015.
- While US production continues to grow, production in Oceania is now on the decline,

Global Demand

| Situation | Outlook |
|---|---|
|  Negative |  Positive |



- International dairy product demand has begun to improve in 2016.
- A slight increase in Chinese imports of milk powers in 2016 has taken place.
- The Russian embargo has remained in place and this is also adversely affecting international dairy product demand.
- A build-up of dairy stocks over the last year will overhang the market in the short term
- Overall, this suggests that despite the recovery in demand, the imbalance in supply and demand will remain a problem in the short term.

Milk Prices

| Situation | Outlook |
|---|---|
|  Negative |  Negative |



- In US dollar terms, in 2016 international dairy commodity prices dipped to their lowest level since 2009.
- The weak euro has protected the EU market to some degree from the full impact of the decline in international dairy prices.
- Irish milk prices have slipped below 25 cent per litre over the peak delivery period.
- Short term prospects are weakly positive. The Global Dairy Trade auction prices have been higher in Q2 2016 than in Q1. Stock accumulation will likely mean that the rate of recovery in prices is slow.

Irish Production

| Situation | Outlook |
|---|---|
|  Positive |  Positive |



- Milk deliveries to the end of May were 11% above the same period in 2015.
- However, production in Q1 of 2015 was particularly low to limit superlevy obligations and this has inflated the observed increase to date in 2016.
- Dairy cow numbers continue to increase, with the herd likely to be about 10 % larger in mid 2016 than in mid-2015.
- Milk production will continue to run ahead of 2015 in the coming months. However, the overall increase for the year is likely to be smaller than the increase in the year to date, perhaps closer to 7%.

Input Cost

| Situation | Outlook |
|---|--|
|  Positive |  Neutral |

- Feed prices to date in 2016 were broadly similar to 2015.
- Aggregate dairy feed sales to the end of May were running about 6% ahead of same period in 2015.
- Lower energy prices have filtered through to the fertiliser market and fertiliser prices are down about 10% in 2016.
- Fertiliser use over the first half of the fertiliser year is down over 12% on the previous year.
- Overall, production costs in Q1 and Q2 of 2016 are down on the 2015 level and there are no signs of imminent production cost increases.

Irish Farm Income

| Situation | Outlook |
|---|---|
|  Negative |  Negative |

- Average net margin in cent per litre in 2016 is likely to be in the low single digit territory.
- High cost farms will record negative net margins.
- Higher levels of milk production will offset some of the impact on income caused by the 15% decline in milk prices.
- Subsidy payments, which average about €20,000 per dairy farm, will offset some of the drop in income.
- The current forecast is that the average sized Irish dairy farm could see its income halved in 2016.
- Production on some farms may contract and those farms may face a greater income drop.

Dairy Market

Figure 13 summarises recent milk supply developments. To date in 2016 milk production is up 4.5% in the EU and by 1.8% in the US relative to 2015. By contrast in New Zealand and Australia production in the season just ending was down 1.8% and 1.2% respectively.

At the EU member state level there is a mixed picture, with production still increasing strongly in Ireland, the Netherlands, Germany, Poland and Italy. Production growth is likely to slow in the EU as the year progresses and overall EU production in 2016 is expected to be about 1% to 2% higher than in 2015.

Plentiful dairy product supplies and growing stock levels have not been matched by strong dairy product demand over the last 12 months. In spite of a recent improvement in international export demand, the market remains depressed. Figure 14 shows Chinese powder imports in the period January to May 2016 and in the same period in 2015.

In 2016 in US dollar terms dairy commodity prices have fallen to their lowest level since the crisis of 2009. EU SMP prices are at EU intervention levels, while EU prices for butter have been a bit more resilient. The decline in international dairy prices has been reflected in the lowest Irish monthly milk prices since 2009. The negative price impact has been made greater in Ireland by the fact that the market weakness has coincided with the peak period for milk deliveries in Ireland.

The euro is worth considerably less against the US dollar in 2016 in comparison with the exchange rate at the time of the crisis in 2009. The current weakness of the euro against the dollar has therefore protected the EU market to some degree from the full impact of the decline in international dairy prices. As shown in Figure 15, Irish milk prices were still at 30 cent per litre in January 2016, but

slipped to 25 cent per litre by May.

Short term prospects for dairy commodity prices are weakly positive. Figure 16 charts the most recent Global Dairy Trade auction price developments, which suggest that prices have generally been higher in Q2 of 2016 than in Q1 2016.

Comparisons of EU milk production to date in 2016 with production in the same period in 2015 are somewhat misleading as an indicator of the overall production trend. This is because production was constrained in H1 2015 in order to limit superlevy exposure in Q1 of 2015. Overall milk production growth in Ireland in 2016 remains strong in spite of the low milk prices, driven partly by the large increase in dairy cow number over the last 18 months.

The increase in Irish milk production for the year as a whole will depend largely on grass growing conditions between now and the end of the season. The low milk price may also put a dent in the increase in deliveries. Production for 2016 is likely to be 7% up on 2015.

The available data for the first half of 2016 shows little movement in Irish feed prices in comparison with 2015, although there is anecdotal evidence to suggest that feed prices are now on the decrease.

It is notable that the volume of aggregate Irish dairy feed sales has been running ahead of the 2015 level. April weather conditions were unfavourable, leading to a boost in feed sales. Overall, however the higher level of feed sales can be explained by the continuing increase in the Irish dairy cow population. Feed use per cow in H1 of 2016 by contrast is probably no greater than in H1 of 2015.

Following the fall in oil prices which began in 2014 and the subsequent fall in natural gas prices, farm level fertiliser prices finally trended downward over recent

months. The decrease has been limited however by the weakness of the euro versus the US dollar. Fuel expenditure has declined further in 2016, reflecting the sharp fall in oil prices over the last 12 months.

Overall, 2016 production costs appear to be down appreciably on the 2015 level and the outlook for the rest of 2016 suggests that no escalation in costs is likely.

The weakness in dairy markets has taken longer than anticipated to have its full impact on milk prices and farm income in Ireland. In the corresponding publication 12 months ago we anticipated that dairy farm incomes in 2015 would be well down on the 2014 level. In reality, dairy expansion and processor support for milk prices meant that the final outcome for dairy farm incomes in 2015 were broadly similar to 2014 on many farms.

However, the full impact of the collapse in dairy commodity prices is evident in 2016 milk price developments and will be reflected in the forecast fall in dairy farm income in 2016.

While direct input costs will be lower in 2016, a major impact will be felt from a fall of 15% or so in milk prices in 2016 taking the annual average price to approximately 25 cent per litre (actual fat vat inclusive basis).

On farms where it is profitable, lower production costs, and increased milk deliveries will partly offset the impact on farm income of falling milk prices, as will the subsidy payments which dairy farmers receive annually. Conversely there may also be farms where the low milk prices leads to a contraction in production, which may amplify the fall in farm income.

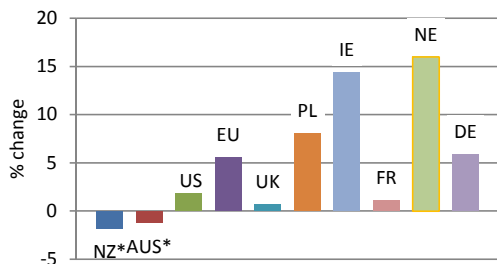
Figure 17 shows the average net margin per hectare in 2014, 2015 and the forecast margin for 2016. The substantial milk price reduction in 2016 is forecast to leave the typical dairy farm net margin per hectare 60% to

80% lower on a per hectare basis in 2016.

Average dairy farm income in 2016 is forecast to fall by a smaller percentage than the fall in net margin. This is due to the cushioning effect of direct payments and income from the other enterprises on the dairy farm.

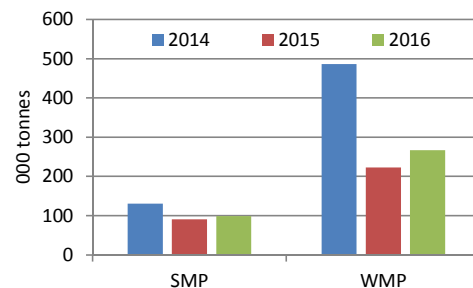
The average dairy farm received a subsidy payment of around €20,000 in 2015 and had an estimated average farm income of over €65,000. It is difficult to generalise on the outcome for dairy farm income in 2016, as it will be affected by farm specific circumstances, i.e. whether the farm has continued to expand production, remained the same size or whether its production has contracted. We forecast that average dairy farm incomes in 2016 will be about half of the average income in 2015.

Figure 13: Percentage Change in Milk Production Jan to May 2016 in EU & US (July '15- May '16 NZ & AUS)



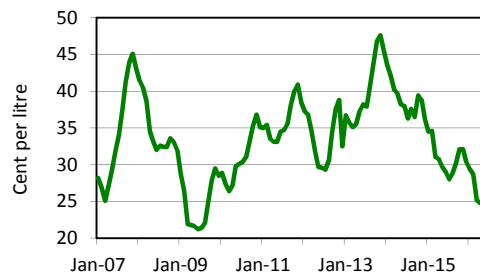
Source: Eurostat, USDA, Dairy Australia, DCANZ

Figure 14: Chinese Powder Imports Jan to May 2014, 2015 & 2016



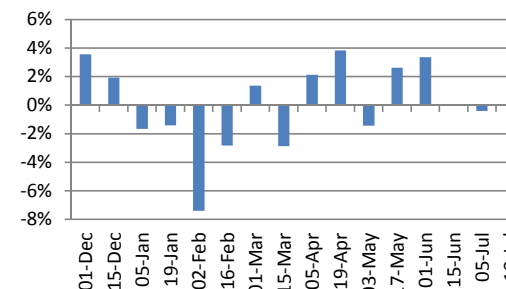
Source: US Dairy Export Council

Figure 15: Monthly Irish Farm Milk Prices (actual fat)



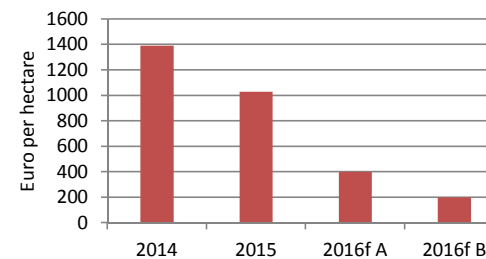
Source: CSO

Figure 16: GDT Auction Index Month on Month Price Movements in 2016



Source: GDT

Figure 17: Dairy Net Margin per hectare 2014 and Forecast for 2016



Source: Teagasc Own Estimates

Note: 2016A and 2016B represent the range of lower and higher forecasts for net margin in 2016

Beef Market

| EU Supply | | EU Demand | | Beef Prices | | Production | | Input Costs | | Farm Income | |
|--|---|--|---|---|--|---|---|---|---|---|---|
| Situation | Outlook | Situation | Outlook | Situation | Outlook | Situation | Outlook | Situation | Outlook | Situation | Outlook |
|  Negative |  Negative |  Neutral |  Negative |  Negative |  Negative |  Positive |  Positive |  Positive |  Positive |  Negative |  Negative |
| <ul style="list-style-type: none"> EU beef production in the first half of 2016 has increased by 2% versus 2015. The increase in production in 2016 is largely due to strong growth in the culling of dairy cows in many Member States. For 2016 as a whole, EU production is forecast to increase by more than 2%. Both EU beef imports and EU beef exports are forecast to grow in 2016. | <ul style="list-style-type: none"> The slow growth in EU demand for beef observed in 2015 is expected to continue in 2016. Growth in EU demand for beef in 2016 could be negatively affected by the impact of the UK Brexit decision. Lower economic growth rates, if reflected in lower average per capita incomes, could limit the improvement in per capita demand for beef in 2016. EU exports of beef and live cattle to markets in Turkey, the Middle East and North Africa are expected to continue to grow. | <ul style="list-style-type: none"> To date average EU cattle prices in 2016 have declined relative to levels observed in 2015. The weaker performance of EU cattle prices reflects increased supply on EU beef markets. The weakness of the euro against the US dollar will reduce the attractiveness of the EU as a destination for global beef exports. The weakness of the pound sterling has also contributed to lower Irish cattle prices. Irish finished cattle prices are forecast to decrease by up to 10% in 2016. Prices of calves and weanlings will also decline in 2016. | <ul style="list-style-type: none"> Irish beef production in the first half of 2016 is almost 4% higher than in the same period in 2015. Production is forecast to continue to grow through the second half of 2015. The increase in beef production in 2016 follows the recent evolution of the Irish breeding cow herd and developments in live cattle exports. For 2016 Irish beef production is forecast to increase by up to 8% compared to 2015. | <ul style="list-style-type: none"> The direct costs of beef production are dominated by purchased feed and pasture costs. In 2016 due to normal levels of grass availability, purchased feed volumes are not expected to increase. For the year to date energy and fertiliser prices in particular have been lower than in 2016. Feed prices have been largely unchanged compared to 2015, but are forecast to weaken somewhat over the remainder of the year due to cereal and oilseed market developments and the strength of the dollar. | <ul style="list-style-type: none"> With lower prices at almost all points along the Irish beef supply chain (calves, weanlings and finished cattle) cattle farm output value will be lower in 2016. Gross margins per hectare on Cattle Rearing and Cattle Finishing farms are forecast to contract 10% in 2016. As a result of lower cattle prices, negative net margins on both the cattle rearing and cattle finishing enterprises in 2016 are forecast. Due to dependence on direct payments the forecast reduction in family farm income on beef farms is 7%. | | | | | | |

Beef Market

EU beef production in the first half of 2016 is 2% higher than in the first half of 2015. Behind this increase are contrasting developments in the disposals of breeding and non-breeding stock. In most EU member states cow slaughter is up strongly as dairy farmers respond to the on-going low milk prices and associated lower incomes by culling dairy cows. For the year to date, total EU cow slaughter is 6% higher than in 2015. Slaughter of non-breeding adult cattle in the EU by contrast has been largely stable.

EU beef production for the year as a whole is forecast to increase modestly, up to 2.2% compared to 2015, due largely to the impact of higher cow disposals.

Growth in EU imports of beef is not expected to add dramatically to the total supply of beef on the EU market. While a weaker euro versus the US dollar reduces the attractiveness of the EU market, the depreciation of the Brazilian real against the euro has augmented the competitiveness of Brazilian beef exports on world markets. EU imports of beef are expected to increase by 4% in 2016. Tight global beef markets due to on-going stock rebuilding in the US and Australia and growth in global demand for beef is expected to support world beef prices.

The outlook for economic growth in 2016 in the EU is complicated by the repercussions of the UK Brexit decision. Any weakness in income growth or a recession in the UK or wider EU as a result of the Brexit vote would negatively affect the demand for beef on Ireland's two key export markets.

With growth in indigenous supply of beef in the EU, the outlook for cattle prices in Ireland and the EU for 2016 largely hinges on the prospects for further growth on domestic EU demand. Slow, but positive, growth in EU beef demand is forecast. However, given on-going uncertainty concerning the impact of the Brexit vote on economic growth in the UK and the Eurozone, and a depreciated pound sterling, we expect that EU prices over the course of 2016 will decline relative to 2015.

Through the first half of 2016, largely as a result of increased supply, average EU prices for all cattle types have been lower than in 2015. EU cow prices through the first half of 2016 are over 7% lower than in 2015, while young bull, steer and heifer prices are between 2% and 7% lower than in 2015. Irish R3 Steer prices for the first 6 months of 2015 are 5% lower than in 2016. The depreciation of sterling versus the euro when allied with the prospect of lower demand from the UK due to slowing economic growth is likely to mean that Irish finished cattle prices could over the course of 2016 be up to 10% lower than in 2015.

Irish beef production in 2016 is expected to grow compared to 2015. For the year to date Irish cattle slaughter is almost 3% higher than over the same period in 2015. Average slaughter weights are also higher boosted by strong growth in the volume of young bulls slaughtered in 2016 as compared to 2015. In contrast to the EU, growth in Irish cattle slaughter is not based on higher levels of cow culling. Irish cow slaughter for the first 6 months of 2016 is largely unchanged on 2015, with higher volumes of cattle slaughtered due to growth in the supply of finished cattle. The greater supply of finished cattle in Ireland reflects the growth in the Irish breeding herd that has been underway since 2010 and the decline in live cattle exports in 2015.

The direct costs of production on Irish cattle farms are dominated by purchased feed and pasture and forage costs. For the year to date, grass availability on Irish cattle farms has been about average with a mild winter followed by a poorer spring. As a result forage availability is not forecast to be a major driver of changes in input expenditure on cattle farms in 2016. In 2016 Q1 aggregate sales of beef feed in Ireland are largely unchanged on volumes sold in in Q1 2015. With higher volumes of cattle being fed for slaughter in 2016, we would expect some increase in volumes of aggregate feed use that is yet to be reflected in official feed sales data.

In 2016 cattle feed, energy and fertiliser prices have been lower than in 2015. Largely stable input volumes – with perhaps the exception of feed use - and lower prices for most inputs in 2016 leads us to forecast lower costs of production per hectare on Irish cattle farms. Lower cattle prices and output value per hectare will however be the key driver of the forecast deterioration in margins earned by Irish cattle farmers in 2016 (see Figure 21).

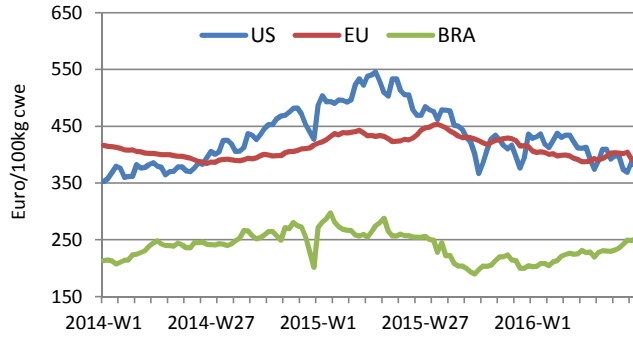
2015 was a good year for cattle finishers, lower finished cattle prices in 2016 will mean that, despite an expected small increase in output volume per hectare, output value per hectare will decline in 2016. This fall in output value will on average exceed the positive impact on margins of lower costs of production. Cattle finisher gross margins are forecast to decline by 10% relative to those earned in 2015.

On cattle rearing farms margins are also forecast to decline by 10% over the levels earned in 2015 due to lower calf, weanling and finished cattle prices.

The volatility in enterprise gross margins earned reflects the year to year volatility in cattle prices and input costs. However, farm incomes on cattle rearing and cattle finishing farms are not as volatile given the on-going dependence of incomes on direct payments. Family Farm Income on both Cattle Rearing and Cattle Other farms is forecast to decline by 7%.

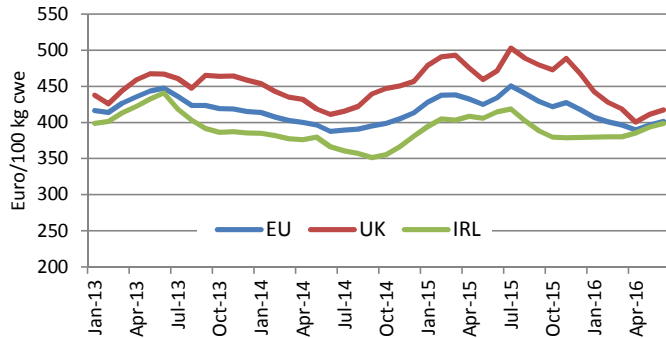
Beef Market

Figure 18: Weekly EU and World Steer Prices 2014-2016



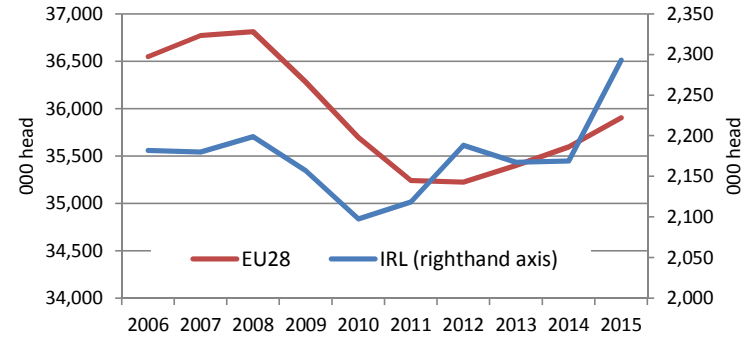
Source: Bord Bia and DG Agriculture and Rural Development

Figure 19: Monthly EU, UK and Irish Finished Cattle Prices 2013 to 2016



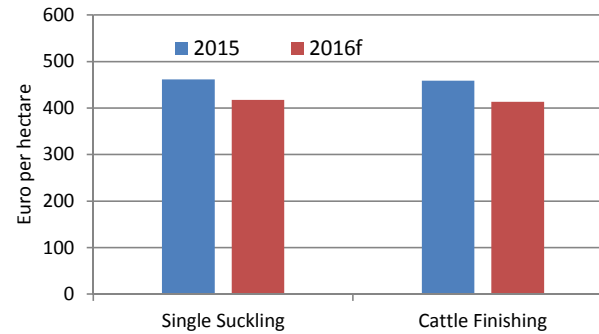
Source: DG Agriculture and Rural Development

Figure 20: Irish and EU cow inventories (December)



Source: Eurostat

Figure 21: Single Suckling and Cattle Finishing Gross Margin per hectare 2015 and Forecast for 2016.

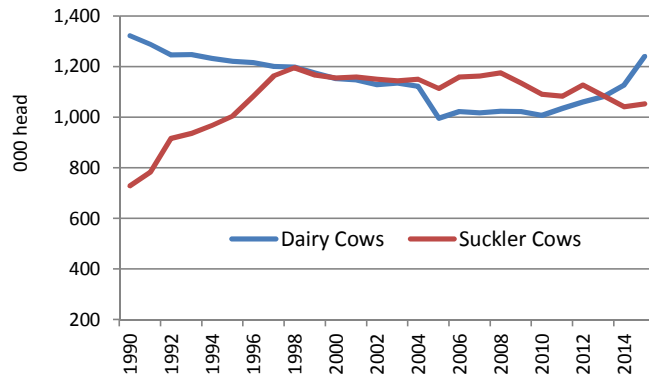


Source: Teagasc NFS and Own Estimates

Beef Market

Developments in dairy and suckler cow inventories are important both as indicators of likely future developments in beef and milk supply, but also because of the key role played by bovines in GHG emissions from Irish agriculture. In Figure 22 the developments over the last 25 years in dairy and suckler cow inventories are presented. In recent years the small decline in Irish suckler cow numbers has been more or less matched by increases in dairy cow numbers to leave aggregate cow inventories largely stable at around 2.1 million cows. Offsetting developments in the dairy and suckler herds at an aggregate national level was previously observed in the 1990s, when suckler cow numbers expanded rapidly.

Figure 22: Long Term trends in Dairy and Suckler Cow Inventories (December)



Source: Eurostat

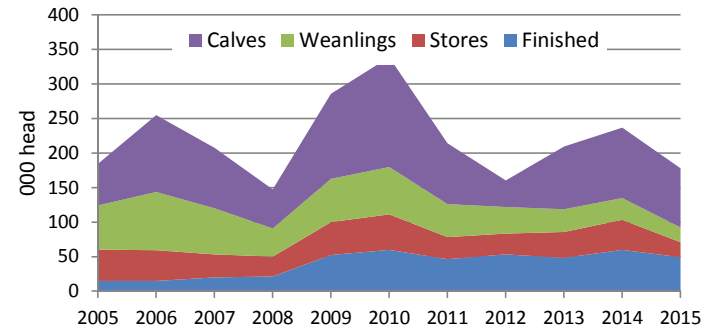
As noted earlier, developments in the live exports of calves, weanlings and store animals affects the volume of cattle available for slaughter in the short to medium term. Much of the year to year variation in the total Irish cattle slaughter can be related to variation in live animal exports and changes in the composition of live exports over time.

The most volatile component of Irish live cattle exports are calf exports. In the last 10 years the volume of calves exported has varied from almost 160 thousand head in 2010 to less than 40 thousand head in 2012. As Figure 24 shows, to date live exports of calves are 18% lower in 2016 than in 2015. With most calf exports occurring during the spring calving season, calf exports for 2016 are largely complete. The depreciation of sterling versus the

euro over the course of the first 6 months of 2016 also reduced the competitiveness of exports of finished cattle, while the closure of the Belgian market for Irish calves and an increase in Irish dairy calf prices relative to prices in continental markets reduced the competitiveness of Irish calf exports in 2016.

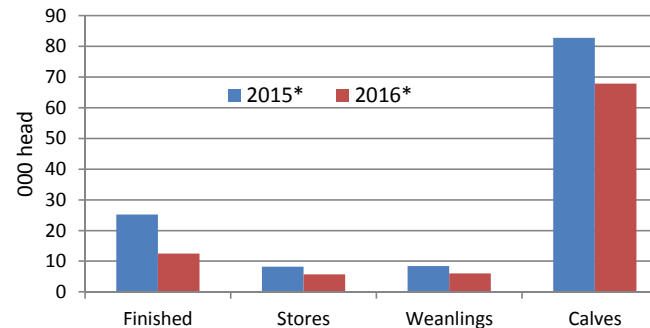
The increased numbers of calves retained in Ireland as a result of lower live exports and increased cow inventories in 2015 and 2016 will in due course be reflected in increases in the volume of cattle available for slaughter in 2016 and 2017.

Figure 23: Irish Live Cattle Exports 2005-2015



Source: Bord Bia

Figure 24 Irish Live Cattle Exports Year to Date 2015 and 2016



Source: Bord Bia

Sheep Market

| EU Supply | | EU Demand | | Lamb Prices | | Production | | Input Costs | | Farm Income | |
|---|--|---|--|--|---|---|---|---|---|---|---|
| Situation | Outlook | Situation | Outlook | Situation | Outlook | Situation | Outlook | Situation | Outlook | Situation | Outlook |
|  Neutral |  Negative |  Neutral |  Negative |  Neutral |  Negative |  Positive |  Positive |  Positive |  Positive |  Negative |  Negative |
| <ul style="list-style-type: none"> The EU production of sheep meat for the year to date is largely unchanged on the level in 2015. Over the year as a whole EU sheep meat production is forecast to grow 2% on the level produced in 2015 In 2016 EU imports of lamb (primarily from New Zealand) are forecast to increase only marginally over levels imported in 2015. | <ul style="list-style-type: none"> While lamb prices increased in 2015, consumption also grew. Sheep meat consumption in the EU increased in 2015 due to improved economic conditions. The outlook for demand in 2016 is less favourable. Brexit is expected to negatively affect economic growth rates and slow the growth in per capita demand for sheep meat. In 2016 the aggregate demand for sheep meat in the EU is forecast to increase only in line with supply growth. | <ul style="list-style-type: none"> Prices in EU heavy lamb improved between 2008 and 2015. In 2016, however, heavy lamb prices have declined as supply growth outstripped growth in demand. The weaker pound sterling has increased the competitiveness of UK exports. To date in 2016 Irish lamb prices are 1% lower than in 2015. With the seasonal reduction in lamb prices underway, and given that current sterling weakness is expected to persist, prices for the year as a whole are forecast to be 3% lower than in 2015. | <ul style="list-style-type: none"> Irish sheep meat production for the year to date is significantly higher than in 2015. Increases in the volume of lambs slaughtered (3%) have been augmented by a very large increase in the number of ewes slaughtered (25%). The second half of the year is normally when most ewe slaughter occurs. The rate of ewe disposals observed to date is unlikely to continue. Total sheep meat production is forecast to be higher in 2016 than in 2015. | <ul style="list-style-type: none"> Direct costs of production on Irish sheep farms are dominated by concentrate costs and pasture and forage costs. With normal weather in 2016, forage availability is not expected to be a driver of increased input expenditure. For the year to date sheep feed, fertiliser and energy prices have all been lower than in 2015. Lower input prices are forecast for 2016 and costs of production in 2016 should be lower than in 2015. | <ul style="list-style-type: none"> Lower lamb prices and output value will be offset by lower costs of production. Margins earned from sheep production in 2016 are forecast to fall moderately compared to 2015. Gross margin per hectare on the mid-season lowland lamb enterprises is forecast to decrease by 4%. Net margins per are also forecast to decline in 2016, should remain positive. Overall Family Farm Income on sheep farms is forecast to decline by 1% to 2% in 2016. | | | | | | |

Sheep Market

The EU production of sheep meat in 2016 is 2% higher than in the first half of 2015. The increase in production of sheep meat has been largely driven by increases in production (and in particular on-farm slaughterings) in South Eastern Europe (Romania and Bulgaria). In the EU15, growth in sheep meat production in 2016 has been only marginal.

Over the whole of 2016 EU sheep meat production is forecast to increase by 2%, with most of the expected growth occurring in Southern and Eastern Europe. Lamb slaughter in Ireland and France is expected to be higher than in 2015, though lamb retentions for breeding in the UK appears to leading to lower levels of output (see Figure 25).

In 2016, EU imports of lamb are forecast to increase marginally over the levels imported in 2015. The decline in the volume of lamb production in New Zealand (NZ) is expected to limit NZ exports growth to the EU relative to the 2015 level. Overall, the supply of sheep meat in the EU in 2016 should be higher than in 2015. With both production and imports of lamb increasing, the outlook for prices will hinge on whether non-price related demand developments for EU sheep meat in 2016 will be sufficient to absorb the additional supply.

Even though heavy lamb prices increased in 2015, improved economic conditions on average in the Eurozone and the UK led to increased consumption of sheep meat in the EU. The outlook for growth in sheep meat consumption is not so positive for 2016. The depreciation of the pound sterling since the calling of the Brexit referendum has made UK lamb more competitive compared with lamb produced in the Eurozone. Brexit is also likely to lead to lower rates of economic growth in the both the UK and Eurozone. Slower economic growth

would be expected to reduce the rate of growth in demand for sheep meat. With growth in sheep meat supply outstripping growth in demand, EU and Irish lamb prices are likely to decline in 2016 relative to their 2015 levels.

Prices in EU heavy lamb markets steadily improved between 2008 and 2015 (see Figure 26). However, the upward trend in prices is unlikely to continue through 2016. In 2015 the weakness of the euro, particularly against the pound sterling provided a boost to Irish lamb prices. In 2016 the reverse is likely to hold, with sterling depreciating in value against the euro in the year to date.

Ireland and the UK are the principal external suppliers of lamb to the French and other continental EU lamb markets and a weaker sterling increases the competitiveness of UK exports. The current weakness of the sterling against the euro is likely to continue for at least the remainder of 2016 and this will depress the euro value of lamb exports to the UK. It will also augment the price competitiveness of UK lamb versus Irish lamb on the French market.

For the year to date, Irish lamb prices are 1% lower than in 2015 (see Figure 27). With the seasonal reduction in lamb prices currently underway, and a weak sterling for the foreseeable future, lamb prices for 2016 are forecast to be 3% lower than in 2015.

Irish lamb production is slightly higher for the first half of 2016 compared with 2015. Moderate increases in the supply of lambs (+3%) have been augmented by much increased ewe slaughter, which for the year to date is more than 25% higher than in 2015. This higher rate of ewe disposals is unlikely to continue through the second half of the year. Nevertheless, overall Irish sheep meat

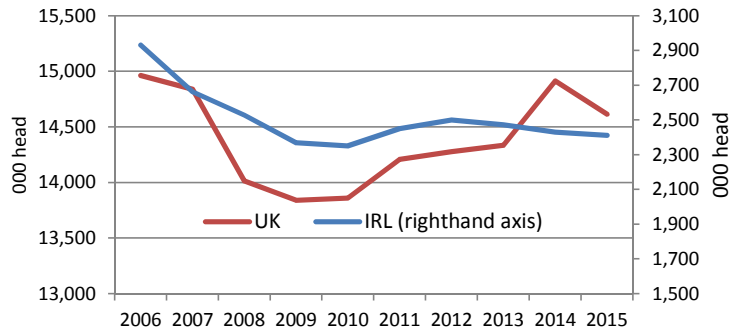
production and ewe disposals are forecast to be higher in 2016 than in 2015.

Direct costs of production on Irish sheep farms are dominated by concentrate costs and pasture and forage costs. Normal weather in 2015 (a poor early spring followed by improved weather and grass growing conditions) has meant that farmers have not had to increase volumes of purchased feed. In 2016 forage availability is unlikely to be a driver of increased input expenditure. For the year to date sheep feed, energy and fertilisers prices have all been lower than in 2015. Lower input prices, particularly for energy, fertiliser and sheep feed, are likely to be reflected in lower costs of production per hectare.

The current strength of the euro versus sterling and the growth in EU lamb supply will mean that Irish lamb prices are likely to be lower in 2016 than in 2015. With reduced costs of production, due to lower direct input costs, and the possibility of a coupled payment under a new Sheep Grassland Payment Scheme, will mean that the negative impact on margins of lower lamb prices will be partially mitigated. Gross margins earned on Irish sheep farms are forecast to decline in 2016. The gross margin per hectare on mid-season lowland lamb enterprises is forecast to decline by 4% in 2016 compared with 2015 (See Figure 28). Given the dependence of the sheep farm incomes on direct payments the change in family farm income for the average sheep farm in 2016 is forecast to be between -1% and -2%.

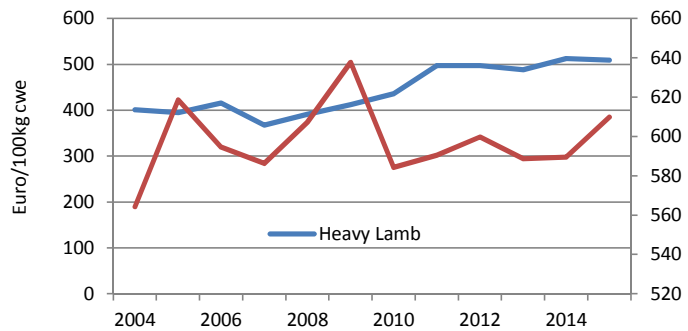
Sheep Market

Figure 25: UK and Irish Ewe Inventories (December)



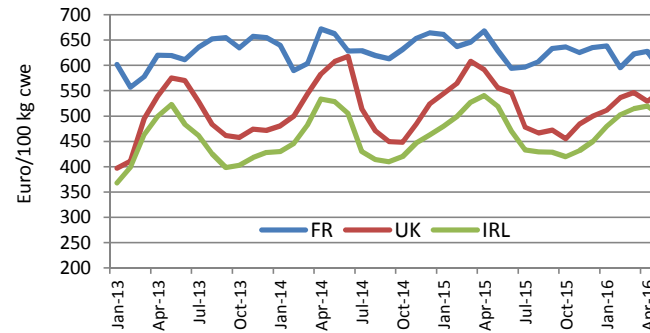
Source: Eurostat and DEFRA

Figure 26: Weekly EU Heavy and Light Lamb Annual Prices 2004-2015



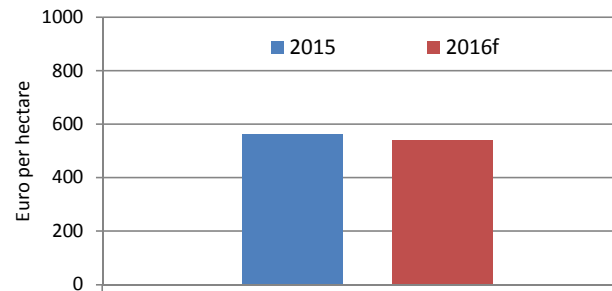
Source: DG Agriculture and Rural Development

Figure 27: French, UK and Irish Monthly Finished Lamb Prices



Source: DG Agriculture and Rural Development

Figure 28: Mid-Season Lowland Lamb Gross Margin per hectare



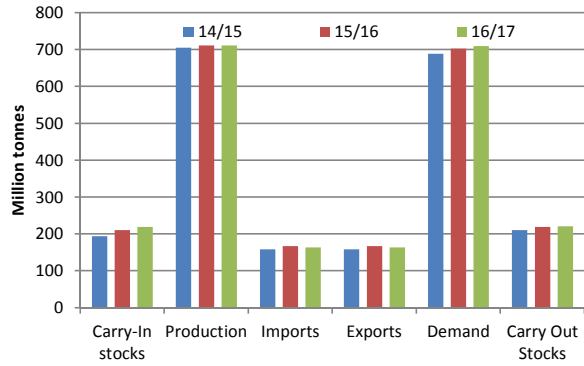
Source: Teagasc NFS and Own Estimates

Tillage Market

| Wheat Market | | Barley Market | | Prices | | Production | | Input Costs | | Farm Income | |
|--|---|--|---|---|---|---|--|---|---|---|---|
| Situation | Outlook | Situation | Outlook | Situation | Outlook | Situation | Outlook | Situation | Outlook | Situation | Outlook |
|  Negative |  Neutral |  Negative |  Neutral |  Negative |  ? |  Negative |  ? |  Positive |  Positive |  Negative |  Negative |
| <ul style="list-style-type: none"> EU wheat production in 2016/2017 is expected to be about 145.5 Mt, 4 per cent less than in 2015/16. EU industrial and on farm consumption of animal feeds (wheat, barley and maize) is expected to be higher in 2016/17 by about 0.5 Mt. World wheat production in 2016/17 is expected to be 712Mt, which is almost the same as the level in 2015/16. Demand is to increase, up almost 8Mt on 2015/16. World ending stocks are expected to be only slightly up by 1.8 Mt less in 2016/17 compared to 2015/16. | <ul style="list-style-type: none"> Aggregate EU barley production is set to increase by about 2 per cent compared to the previous year. World barley supply is forecast at 143.6 Mt which is 4 Mt less than 2015/16. World demand is expected to be higher this year, standing at 146.8 Mt, due to animal feed demand. Based on current prices, demand is expected to transfer from maize to barley, with incorporation rates for barley higher in 2016/17 compared to last year. World ending stocks are forecast to be approx. 23.6 Mt in 2016/17, down from 2015/16. | <ul style="list-style-type: none"> Despite a slight increase in forecasted ending stocks for barley, and a slight decrease for wheat, all signals at present indicate a decrease in harvest price in 2016 relative to 2015. July futures are indicating at least a 10 per cent decrease in harvest prices in 2016 over 2015 levels. Particular unknowns for the latter part of the year include: exchange rate influences, demand interactions between commodities (e.g. maize and barley) and production potential in France and the UK in particular. | <ul style="list-style-type: none"> Data show that winter wheat, barley and oat areas have increased, but all spring cereal plantings decreased. The total area of tillage crops declined by nearly 5 per cent in 2016. It is too early to accurately forecast 2016 yields, but early indications are that yields will not be as high as 2015 or 2014. Early harvesting of winter barely has reported yield decreases of between 10 and 20 per cent compared to 2015. In the winter barley crop that has been harvested thus far, specific hectolitre weights have not been as high as 2015 levels. | <ul style="list-style-type: none"> In 2016 there has been very little change in crop protection and seed costs. Energy costs declined by about 12%. There was also a decrease in fertiliser prices, by about 9 per cent compared to 2015. Lower energy prices should have benefited a number of overhead costs. Anecdotal evidence suggests that land rental prices have increased. Overall, it is estimated that total costs on the average tillage farm in 2016 will be only 2 per cent lower than in 2015. | <ul style="list-style-type: none"> With lower harvest prices and lower yields for the main cereal crops, cereal output value is estimated to be significantly lower in 2016. Overall costs in 2016 will not be much changed, with lower fertiliser spending and fuel bills being offset by increases in other cost items. Average income on tillage farms in 2016 is expected to be close to €20,000, which means that the average tillage farmer will need to use some of the Single farm Payment to subsidise unprofitable production. However, this income forecast is contingent on yields and prices attained at and after harvest time. | | | | | | |

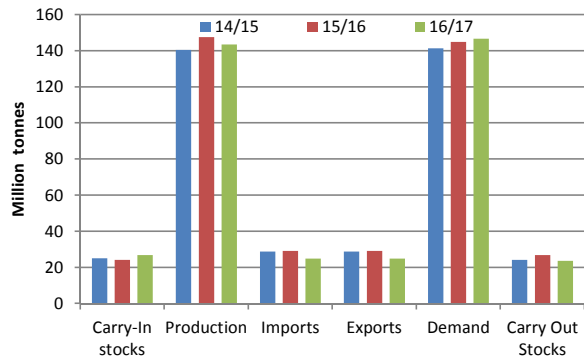
Tillage Market

Figure 29: World Wheat Balance from Main Exporting Countries (Mt)



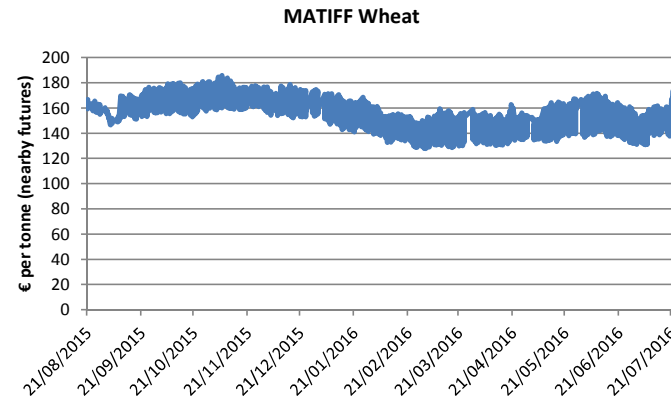
Source: Strategie Grains

Figure 30: World Barley Balance Sheet (Mt)



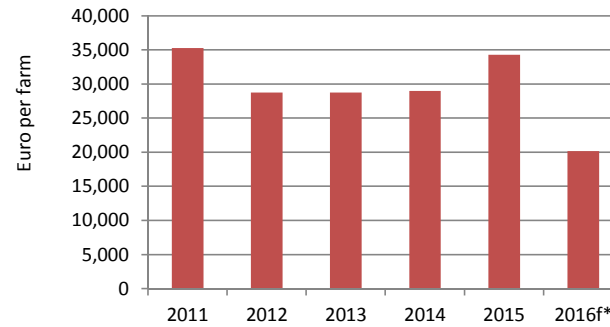
Source: Strategie Grains

Figure 31: Nearby Futures Prices – August 2015 – July 2016 (€ per tonne)



Source: HGCA

Figure 32: Average Irish Tillage Farm Income



Source: Teagasc, National Farm Survey and author's estimates

