FAPRI-Ireland Outlook 2001

Medium Term Analysis for the Agri-Food Sector

Teagasc Rural Economy Research Centre

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Tel: + 353 (0)1 6376000
Fax: + 353 (0)1 668 8443
www.tnet.teagasc.ie/fapri

Teagasc
19 Sandymount Avenue
Dublin 4

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FAPRI-Ireland Partnership

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Project Leader: Paul Kelly (Teagasc)

Observers:

Seamus McErlean, (QUB)
Bob Muldoon, (ICCUSA)
Joan Moss, (QUB);
Tom Stainer, (DANI).

Funding Bodies

- National Development Plan
- International Fund for Ireland

The Partnership's Research Linkages

- FAPRI at the University of Missouri, Columbia, USA
- The Queen's University of Belfast

Contributors

Julian Binfield binfieldj@missouri.edu

Julian specialises in modelling livestock markets. He is responsible for the beef, sheep, and poultry sector projections as part of the FAPRI-Ireland Partnership.

Trevor Donnellan tdonnellan@hq.teagasc.ie

Trevor is responsible for the dairy and pig sector modelling for the FAPRI-Ireland Partnership. He is a researcher in Teagasc, Rural Economy Research Centre.

Kevin Hanrahan khanrahan@hq.teagasc.ie

Kevin is a researcher in the Rural Economy Research Centre. He works with the other FAPRI-Ireland team members in producing the projections developed under the FAPRI-Ireland Partnership.

Thia Hennessy thennessy@hq.teagasc.ie

Thia is working on farm level analysis where she estimates the effects of the scenarios and projections for Ireland on the financial situation of representative farms. This analysis also involves projecting the likely farmer response to policy scenarios.

Paul Kelly pkelly@hq.teagasc.ie

Paul is a researcher in Teagasc, Rural Economy Research Centre and Project Leader of the FAPRI-Ireland Partnership.

Alan Matthews amatthews@tcd.ie

Alan is Jean Monnet Professor of European Agricultural Policy in the Department of Economics, Trinity College Dublin. His interests include agricultural policy evaluation, food and agricultural trade policy and food security in developing countries.

Kieran McQuinn kmcquinn@hq.teagasc.ie

Kieran is responsible for projections of the crop sector, agricultural inputs and agricultural incomes from the econometric model developed under the FAPRI-Ireland Partnership.

Brendan Riordan briordan@hq.teagasc.ie

Brendan is a researcher in Teagasc, Rural Economy Research Centre. He co-ordinates the development of scenarios to be analysed by the FAPRI-Ireland Partnership.

Alwyn Thomas athomas@hq.teagasc.ie

Alwyn is responsible for the FAPRI-Ireland Partnership Database. He also provides information and technical support to collegues.

Patrick Westhoff westhoffp@missouri.edu

Pat is Program Director for International Affairs at the Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri.

Robert E. Young II youngr@missouri.edu

Bob is Co-Director of the Food and Agricultural Policy Research Institute. He was a visiting research fellow at Teagasc from September 1997 to December 1998, advising and participating in the development of modelling activities.

Preface

The papers in this publication are the second of an annual series of agricultural and food sector outlooks produced by the FAPRI-Ireland Partnership. This publication is produced in conjunction with our partners the Food and Agriculture Policy Research Institute (FAPRI).

Every year FAPRI use their suite of models to project the course of world commodity markets under a 'no policy change' scenario. This is used to produce a "baseline" 10-year projection for the main agricultural producers of the world. After a period of review and re-simulation, a global outlook is published early in the year.

A model for the EU, the EU GOLD model, has also been developed to examine the effects of agricultural policy change. This model is linked to the global FAPRI modelling system. This GOLD model produces projections of the outlook for agriculture in individual member states, including Ireland.

Policy analysis is the main purpose of the FAPRI-Ireland Partnership. The primary role of the baseline is to provide a benchmark against which potential policy developments can be measured. In addition, the baseline projections allow us to highlight key medium term market developments and draw some conclusions about future policy developments and their impact on Irish agriculture.

The figures presented in this publication are not "forecasts". There are a large number of variables that can have an impact on the sector that one cannot forecast. The weather has a large impact on incomes, for example. On the policy side, developments are anticipated in relation to a new agreement on agriculture in the World Trade Organisation (WTO) and the future enlargement of the EU.

The first paper by Patrick Westhoff and Robert Young (FAPRI Missouri) contains the baseline outlook for global and EU agricultural markets. These developments are of course crucial for Ireland, given the export focus of the sector.

In the second paper an aggregate level baseline projection for the key Irish agricultural output and input sectors is presented, ultimately leading to the development of a projection of Irish agricultural operating surplus (analogous with agricultural income).

Allied to these aggregate agriculture sector projections is modelling at farm level. The FAPRI-Ireland farm level modelling is based on representative farms - using linear programming to replicate the optimisation behaviour of producers. The results of the aggregate sector level models are fed into the farm level models, producing farm level results which are presented in the third paper.

A key development over the last 12 months has been the re-emergence of BSE as a significant influence on beef markets across the EU. While the baseline scenario incorporates one possible outcome of the fall off in beef consumption in the EU, it is difficult to gauge the extent to which the sector in Ireland will be affected by BSE. In the fourth paper two alternate scenarios are developed, one in which BSE has a more limited impact on consumption than that projected in the baseline and the other in which BSE has a more significant impact on consumption than that projected in the baseline. The results in this paper will provide an indication of the range of possible BSE related effects on the beef sector at both aggregate and farm level. In addition, paper 4 will examine the knock-on effects which BSE induced changes in beef output and prices will have on related food processing sectors and the wider economy in general.

The figures that are presented here today are not forecasts for the future, there will always be policy and market developments that cannot be predicted reliably. Consequently, the final paper discusses likely future developments in policy, in particular the possible reduction or elimination of EU export refunds. Although, the WTO Millennium Round negotiations have not concluded, assumptions have been made as to the outcome of the negotiations in order to conduct a simulation of the effects.

Since Ireland is a major exporter and has typically accounted for a large proportion of subsidised exports from the EU, any reduction of allowed levels will have implications for Ireland.

These proceedings aim to provide a comprehensive outlook for the agriculture and food sectors in Ireland. The projections that are produced here will form the basis for debate about a number of future policy scenarios, notably the possible reform of the CAP following its review in 2002, the enlargement of the EU to include Central and Eastern European Countries and the possible implementation of the Kyoto Protocol on greenhouse gas emissions.

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Thanks also to those at Grange, Oakpark, Moorepark, Athenry and Johnstown Castle Teagasc Research Centres, Teagasc Advisory staff, the Irish Dairy Board, An Bord Bia, IAWS, the Animal and Plant Health Association and the Irish National Farm Survey.

This publication could not have been produced without the substantial contribution and sustained support of Pat Westhoff and Robert Young of FAPRI Missouri. This initiative has also benefited from co-operation with our partners at the Queen's University of Belfast, who are engaged in a similar project.

Finally, the production of this publication coincides with the departure of Julian Binfield from the team responsible for this work. For over three years Julian has worked as an economist with the FAPRI-Ireland Partnership at Teagasc, Rural Economy Research Centre, specialising in the economics of the beef and sheep sectors. Dealing with this most difficult undertaking, he has by common consent achieved an enormous amount over this time. Those who remain on the FAPRI-Ireland team wish Julian the very best in his new position, with FAPRI at the University of Missouri, and hope that our paths may cross again in the future.

All errors and omissions remain the responsibility of the authors.

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Executive Summary

Outlook 2001 provides analysis of prospects for the agricultural and food sectors over the period 2001 to 2010 including the possible impact of BSE, the UK FMD outbreak and the WTO Millennium Round negotiations.

The papers in this year's publication use the latest baseline projections of the world and EU agricultural scene produced by FAPRI (Food and Agricultural Policy Research Institute) in the USA.

The Teagasc team of economists has produced baseline projections (i.e. projections which assume no new policies come into place) for dairying, beef, tillage crops, farm inputs and analysis of the implications for farm incomes.

As well as the baseline projections, the team has also produced results from their analysis of scenarios incorporating two important concerns about the future:

- an analysis of the impact of BSE. While the baseline assumes that beef markets recover by 2004, two alternative assumptions about future demand conditions are also analysed. Results include effects at farm level, sector level, the food industry and the wider economy

- an analysis of the impact of a reduction in or elimination of export subsidies, which might occur in the next phase of WTO negotiations.

1. World & EU Baseline: Key Findings

- With a convergence of EU and World prices for several products over the next decade, it appears likely that the welfare of farmers in Ireland and the rest of the European Union will become increasingly dependent on what happens in international commodity markets.
- For a number of farm products, the gap between prices in European markets and the prices prevailing in international markets has narrowed in recent years. Projections by FAPRI imply that the gap may disappear entirely for at least some products over the next ten years.
- Steady growth in real incomes in Europe should provide a firm basis for domestic food demand. Solid growth projected for Russia and much of the developing world should increase food demand and provide trade opportunities. Continued rapid growth in consumer incomes in China could prove especially important to world cereal markets. The forecast is for a gradual appreciation of the euro, to reach $1.14 by the end of the projection period.
- It is difficult to provide a single set of comments to summarise the outlook for world and EU commodity markets, because each market has unique characteristics, opportunities, and risks.
    - At one extreme, EU dairy markets continue to be somewhat insulated from developments in world markets. Indeed, a new WTO agreement requiring further reductions in export subsidies would provide a serious challenge to the EU dairy sector under current policies, as described in paper 5 of this publication.
    - At the other extreme, it appears that EU cereal producers are likely to be less reliant on export subsidies in the future and could find themselves no longer facing the export limits imposed by the Uruguay Round Agreement on Agriculture.
    - The EU meat sector faces a unique set of challenges, given the effects of BSE and FMD. Just how markets for beef and other meats will evolve is extremely uncertain at present. In the baseline scenario, it takes several years for these markets to return to "normal."
- The many uncertainties for the beef sector provide an incentive to examine alternative scenarios regarding consumer and policy response to the BSE and FMD crises, as discussed in paper 4 of this publication.

2. Ireland Baseline Commodity Level: Key Findings

- In the baseline the projected gradual appreciation of the euro has a depressing effect on world commodity prices when expressed in euro terms.
- The market value of the sectors in Ireland, are projected as follows for 2010 in comparison with 2000:
  - Cattle drops 17 per cent due to a decline in both animal inventories and prices. Note that the value of the animals destroyed under the PFD scheme is included. The livestock sector as a whole drops 11 per cent:
  - Milk output value falls by only 2 per cent as the reduction in milk price is counteracted somewhat by an addition to the quota.
- Overall, the net effect of these changes lowers the nominal value of output from the agricultural sector by 6 percent over the period.
- Conversely, subsidies on products are projected to rise by £299 million over the period. The proportion of gross value added of the sector accounted for by these subsidies rises to over 40 per cent.
- Losses due to the BSE crisis in the beef sector are offset in 2001 by gains in other sectors, and an increase in direct payments; with the result that income levels are largely unchanged from 2000 levels. Thereafter, the market value of output remains almost constant with further subsidy increases pushing up incomes.
- In 2010, the operating surplus of agriculture is 4 per cent above the corresponding 2000 figure.

3. Ireland Baseline Farm Level: Key Findings

- At farm level, results show that the value of gross output is maintained through the projection period. However rising direct and in particular fixed costs cause net margin to fall if farmers do not optimise.
- Cattle farms will likely be able to expand their margins, mainly by taking action to maximise direct payments
- Moderate sized dairy farms should be able to increase their margins by purchasing any quota they are currently leasing and, where possible, directly purchasing quota. Smaller operations – those producing 20,000 gallons or less – will find it very difficult to make expansion profitable. They are likely to remain under pressure and by the middle of the decade it may be economically rational to exit the sector.

4. BSE Scenarios: Key Findings

- In order to understand the range of possible outcomes, a more pessimistic scenario was analysed incorporating twice the drop in consumption assumed in the baseline. This resulted in cattle prices at 8 per cent below their baseline 2010 level.
- It was also assumed that all animals were slaughtered at under 30 months, which led to a reduction in carcass weight. Together with the price drop, this left the market value of the sector down 17 per cent on the baseline.
- At the farm level, margins earned in the pessimistic BSE scenario are lower than those observed in the baseline for all farm types and sizes. Margins tend to be between 10 and 20 percent lower than in the baseline.
- In February 2000 the Commission produced a proposal aimed at reforming the beef sector which became known as the "Seven-Point Plan". A scenario involving the proposals made in this plan, would result in a drop in EU beef output and an increase in cattle prices on the baseline. However, the drop in volume is greater than the price increase resulting in the value of the sector in 2010 being down 5 per cent on the baseline.

- Some farms will benefit from the Seven-Point Plan scenario depending on farm size. Benefits come from better prices and the ability to claim up to 40 percent of suckler cow premia on heifers. It is found that 90 percent of cattle farms are better off under the seven point plan scenario than the baseline. The 10percent that are worse off are large cattle farms of approximately 75 hectares. These farms downsize operations after 2002 when the 90 head limit of SBP is reintroduced.
- The benefits gained in the Seven-Point Plan scenario would be slightly reduced if special beef premia were capped to the 2000 limit. If this regulation were in place farmers would not increase steer numbers above 2000 levels.

5. WTO Export Refund Reduction and Elimination Scenarios: Key Findings

- **Export Refund Reductions** analogous to that implemented in the URAA, would have a major impact on the projected outlook for agriculture. The dairy sector, clearly, is the most exposed to the effects of an export refund reduction. While other sectors are affected, these impacts are relatively minor. The operating surplus of the agriculture sector is down 4% per cent relative to its baseline 2010 position or, alternatively, it is almost the same as the 2000 level.
- On the other hand, **Export Refund Elimination** would have serious consequences for the future of all sectors of Irish agriculture. The beef and dairy sectors are the greatest beneficiaries of the export refund regime and it is not surprising that these sectors would bear the brunt of the removal of these supports.

  Ireland's greater reliance on export refunds translates to steeper price declines for Irish output relative to the output of other EU member states. The value of the beef and milk sectors in Ireland are projected to decline by 22 per cent and 20 per cent respectively relative to their 2010 baseline level.

  With the elimination of export refunds, the operating surplus (income) of Irish agriculture is projected to be 19% lower than the baseline position in 2010 or, alternatively, it would be 15 per cent below its 2000 level.

6. Guidelines on Interpretation

- It is important to note that the exact outcome of these scenarios, even if implemented in the manner described, is dependent on a number of factors. Important considerations, which could affect the outcome include:
- *the euro/dollar exchange rate*. Other things being equal, a weaker euro would make EU agricultural products more competitive on international markets. For the various commodities, this would affect the volume of third country exports, world commodity prices and the internal EU product price.
- *compensation for price reductions*. It has been assumed in this analysis that the only new compensation package that EU farmers receive over the course of the projections are those agreed in the Berlin Agenda 2000 reforms. No compensation assumptions have been made in relation to the Millennium WTO reforms. Compensatory payments (linked for example to historical production levels) would affect the results of this analysis. Under conditions where prices are falling relative to the baseline, compensation would provide an incentive to produce more and hence lower prices would result.
- *European Commission behaviour*: For the beef sector in particular this is important, given that the baseline assumed that the Commission chooses to run third country exports at a level below the URAA maximum. This depresses Baseline beef prices. If the Commission operates a higher level of third country exports than is assumed in the Baseline, then the outlook would be more favourable and the difference between the Baseline and the export subsidy scenario would be greater than indicated here.

  Under a more pessimistic EU beef demand outlook, there is less scope for the Commission to underfill its URAA export subsidy limit. Under these circumstances any reduction in export subsidies would have a direct impact on price.