The impact of policy reform on the level of structural change in the agri-food sector of Ireland, Denmark and the Netherlands

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Overview

- Motivation
- Structural Change
- Key Indicators
- Results
- Conclusions
Motivation
Motivation

- From 2005 a new financial support mechanism was introduced ‘decoupling’ farm subsidies from production decisions
- Could possibly have major ramifications for aggregate production, farm practices and the structure of farming
- Relationship between farm structure and agricultural production means the impact of CAP reform on production decisions should give a good indication of the form agricultural structural change will take
Motivation

- Two competing hypotheses of post decoupling agricultural structural change are proposed:
  - Production inducing effect (Burfisher and Hopkins, 2003)
  - Expectations effect (Revell and Oglethorpe, 2003)
Motivation

- Comparable survey (FADN) for Ireland, Denmark and the Netherlands
- Presents a unique opportunity for the Irish experience to be compared with similar regions
- Ideal case studies due to size, recent economic performance and the relative importance of agriculture to the overall economy
Objectives

- Conduct detailed literature review of national and international studies that examine agricultural structural change
- Identify key indicators of such change
- Compile micro-data from the three countries involved in the study
- Produce descriptive report comparing the impact of CAP policy reform on the structure of farms in all three countries
Structural Change
Structural Change

- The definition of *structural change* varies depending on the underlying definition of *agricultural structure* (Zimmermann et al. 2006)
- Essentially there are two components:
  - Productivity
  - Structure of the industry
Structural Change

- First component leads to time series and panel data analysis
- Objective is a descriptive rather than empirical analysis
- Therefore, the component of structural change which relates to the structure of the industry focused on
Key Indicators
Key Indicators

- Can be thought of as statistical constructs which support decision making
- Reveal trends in data which subsequently can be used to analyse the results of policy actions
Key Indicators

- Farm numbers
- Specialisation
- Farm Size
- Economies of Scale
- On-farm Investment
- Off-farm Employment
- Economic Viability
Cross Country Data

- Irish, Danish and Dutch data are obtained from Teagasc, the Institute of Food and Resource Economics (FOI) and the Agricultural Economics Research Institute (LEI) respectively.
- Farms are selected to get a representative sample for each agricultural sector.
Results
Farm Numbers

Years

Farm Numbers

Ire Dairy  Ire Tillage  Den Dairy  Den Tillage  Ned Dairy  Ned Tillage
## Specialisation

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Farm Size: Ireland

Years

Farm Numbers (%)

- <10 ha
- 10×20 ha
- 20×30 ha
- 30×50 ha
- 50×100 ha
- 100+ ha
Farm Size: Denmark


Farm Numbers (%)

- <10 ha
- 10-20 ha
- 20-30 ha
- 30-50 ha
- 50-100 ha
- 100+ ha

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16th April 2010
Ireland: Input Costs/Total Output Ratio

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Denmark: Input Costs/Total Output Ratio

![Graph showing costs to output ratio over years for different cost ranges. The x-axis represents years from 2002 to 2006, and the y-axis represents costs to output (%). There are lines representing different cost ranges: <10, 10<20, 20<30, 30<50, 50<100, and 100+. The costs to output ratio fluctuate over the years, with peaks and troughs for each cost range.]
Netherlands: Input Costs/Total Output Ratio

Years

2002 2003 2004 2005 2006

Costs to Output (%)

<10 10<20 20<30 30<50 50<100 100+
Investment to Output

Years

Investment to Output (%)

- Ire Dairy
- Ire Tillage
- Den Dairy
- Den Tillage
- Ned Dairy
- Ned Tillage
Off-farm Employment

Years

Off-farm Employment (%)

2002 2003 2004 2005 2006

Ire Dairy  Ire Tillage  Ned Dairy  Ned Tillage
Economic Viability

Years

2002 2003 2004 2005 2006

Economic Viability (%)

Ire Dairy  Ire Tillage  Ned Dairy  Ned Tillage
Conclusions
Conclusions

- That structural change is taking place in agriculture is not in doubt
- Previous regime of direct payments may have had the effect of slowing structural change
- Allowed unprofitable farmers to remain in production
- Acted as a barrier to system switching
- The issue this paper aims to address is whether or not the nature and speed of agricultural structural change has altered as a result of recent policy reforms
Conclusions

- This analysis suggests that recent policy reforms have had little effect on structural change.
- Long run trends have continued.
- Therefore, the production effect hypothesised by Revell and Oglethorpe (2003) seems to be prevalent.
- However, this is based on only two years of data post-decoupling.
Thank you for your attention