

# **A comparison of dairy production systems the North and the South**

Patrick R. Gillespie, Cathal O'Donoghue,  
Trevor Donnellan, Fiona Thorne,  
Thia Hennessy, and Stephen Hynes

# Overview

- Motivation and background
- Structural differences
- Trends and structural change
- Enterprise output and costs
- IE, BMW, and NI comparison (Net margins)
- Conclusions

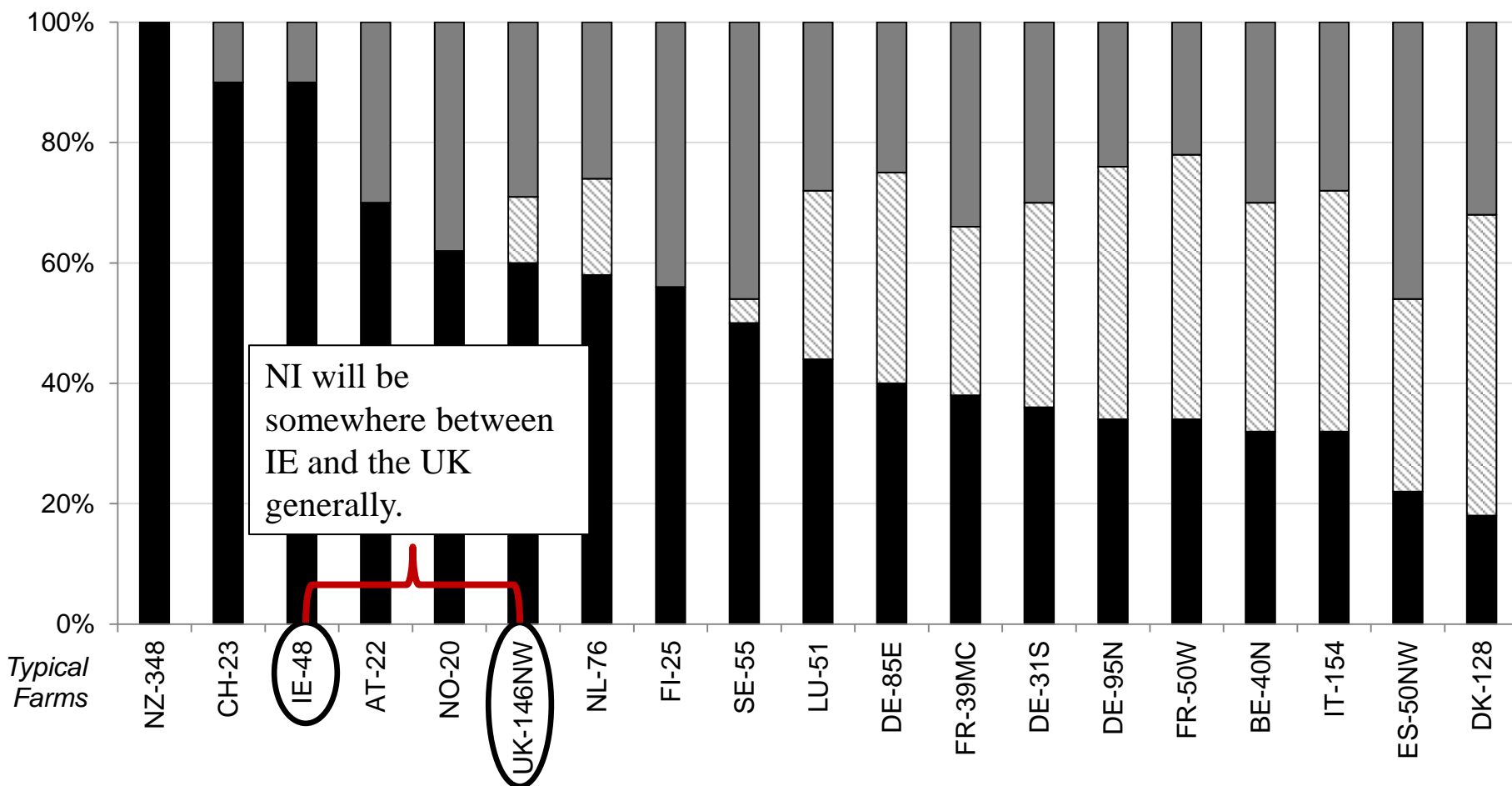
## Motivation and background

- Milk quota ends in 2015
  - Quota has not been binding in NI since 1995.
  - May make a useful comparison.
- Important differences
  - Policy (*i.e.* quota and deregulation)
  - Farm structures
  - Agronomic
- However, systems in both countries are grass-based.

# Structural Differences

# Ration composition on average sized farms (selected dairy regions)

■ Grass (fresh grass, grass silage, hay)    ▨ Others (corn silage, minerals, additives, etc.)    ■ Concentrates



Source: IFCN Dairy Report, 2012

## Structural differences (whole farm average basis)

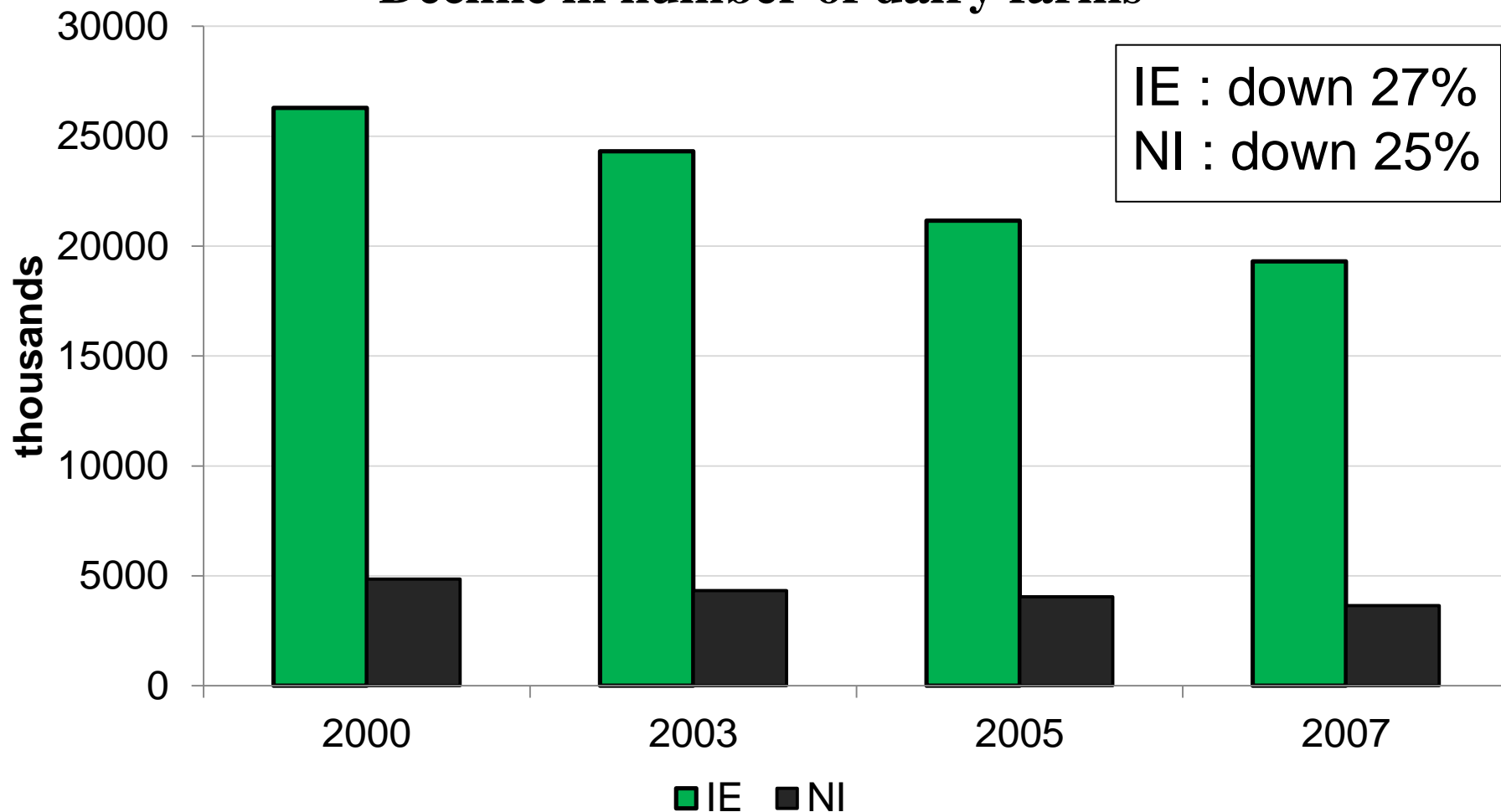
	Ireland	N. Ireland
Dairy Cows (LUs/farm)	64	84
Other Cattle (LUs/farm)	46	50
Total UAA (ha)	58	71
Rented UAA (ha)	14	25
Dairy Forage (ha)	34	44
Stocking rate (LUs/ha)	1.93	1.95
Labour (hours/farm)	3,839	5,176
Labour (hours/LU)	60	62
Milk Yield (litres/LU)	5,358	6,596
Total liabilities	71,580	84,263

Source: FADN public database (averaged over 2009, 2010, and 2011)

# Aggregate Sector Level Analysis

## Trends and structural change

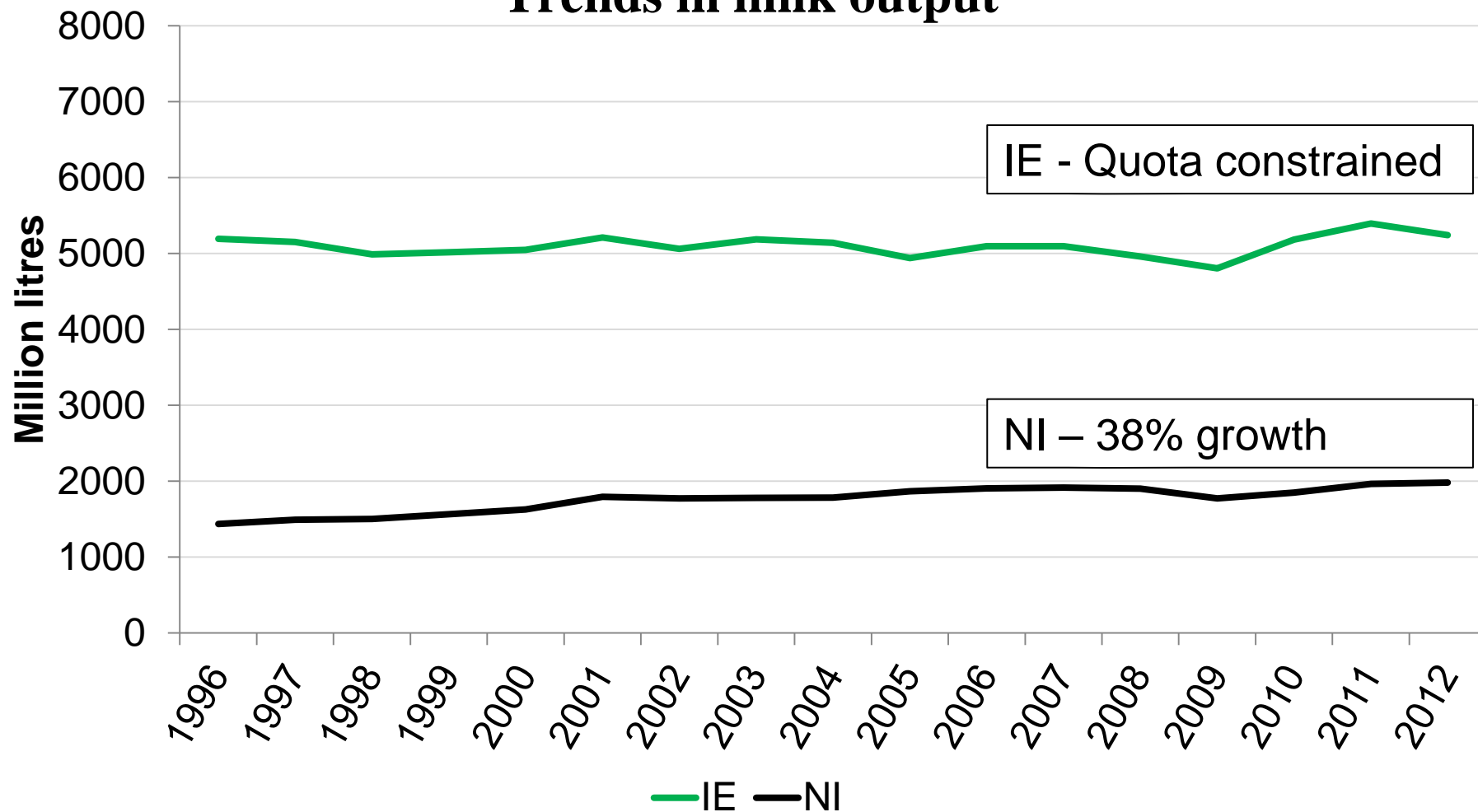
## Decline in number of dairy farms



**Source:** Eurostat (Specialist dairy holdings)

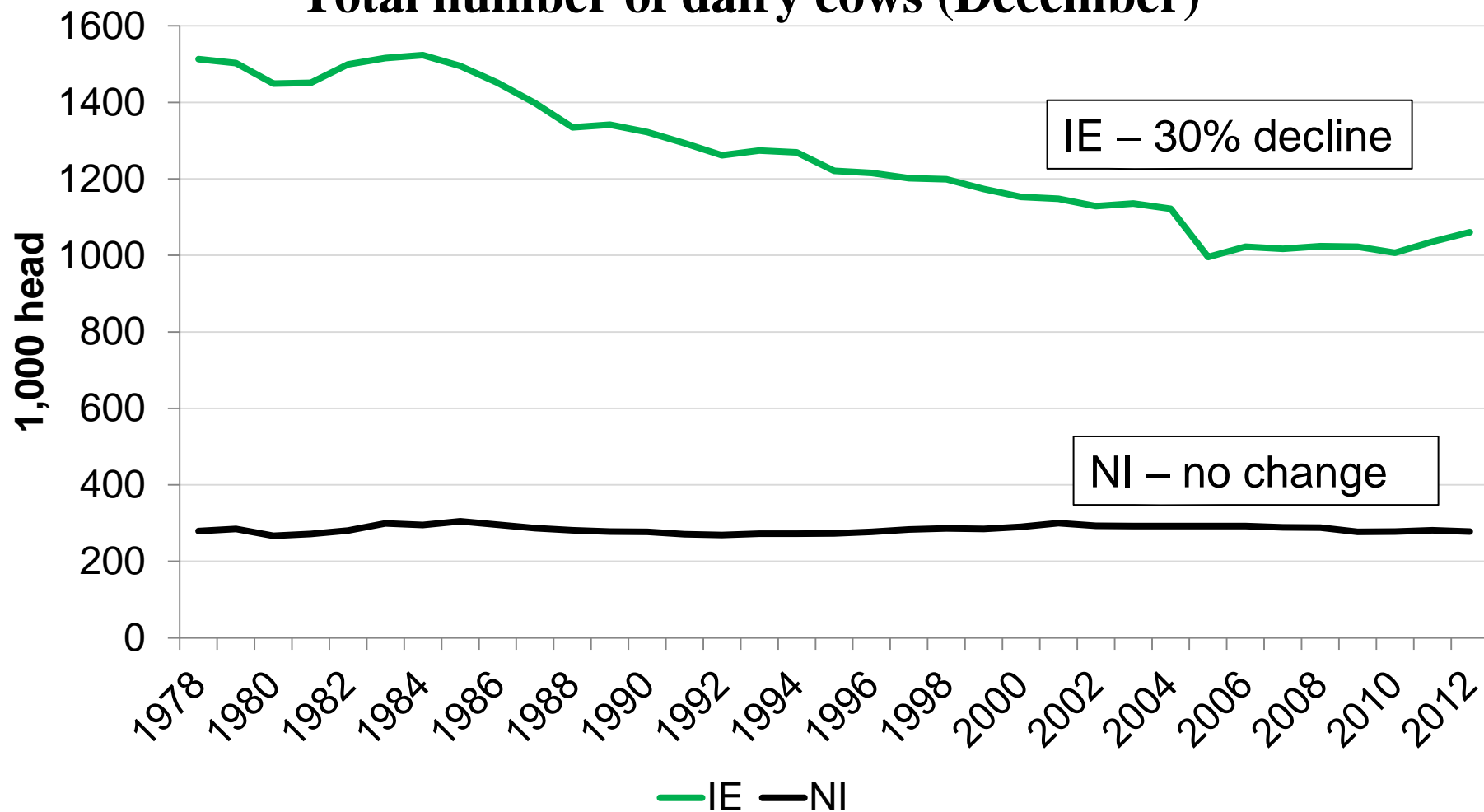


## Trends in milk output



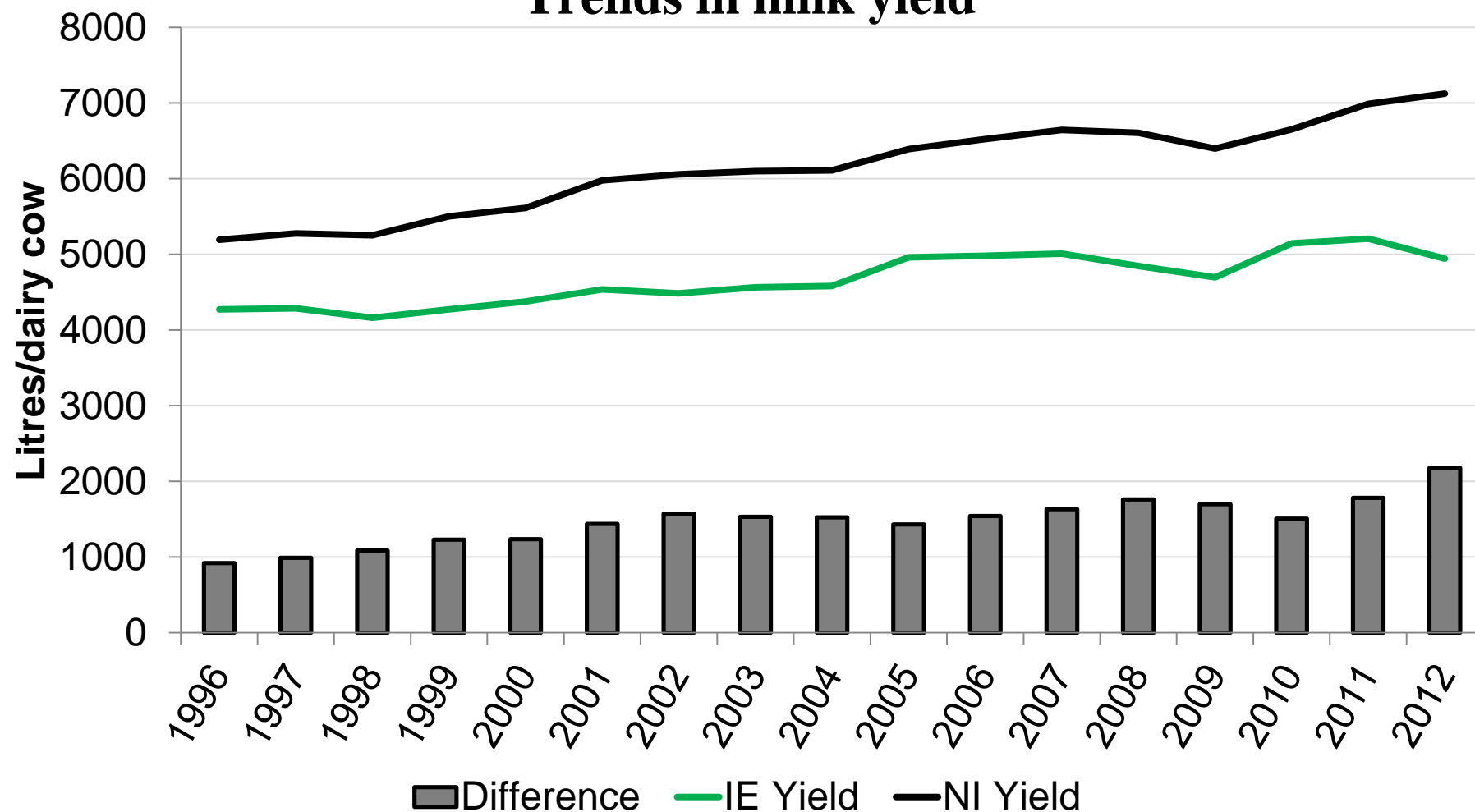
Source: DARDNI, CSO

## Total number of dairy cows (December)



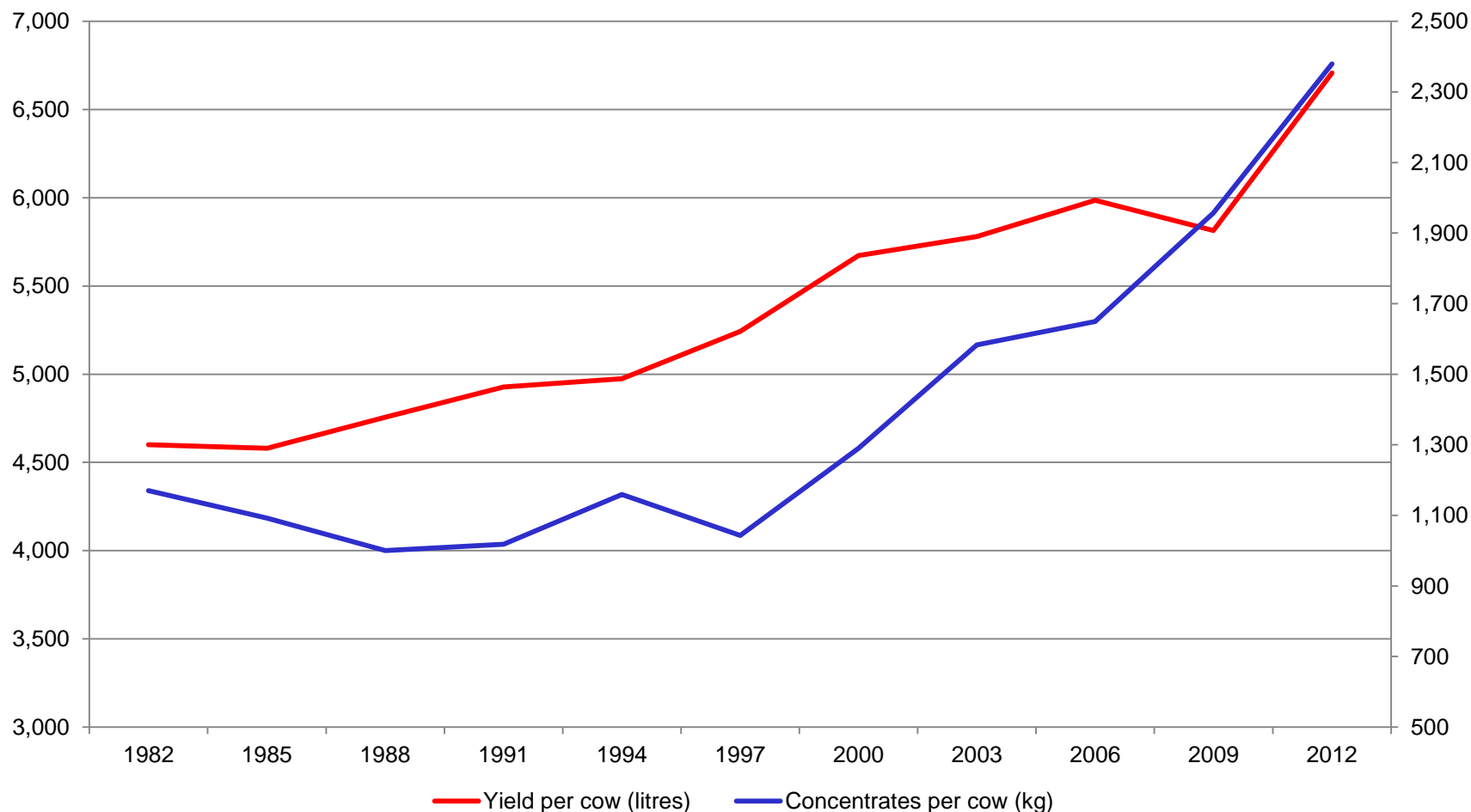
Source: Eurostat

## Trends in milk yield



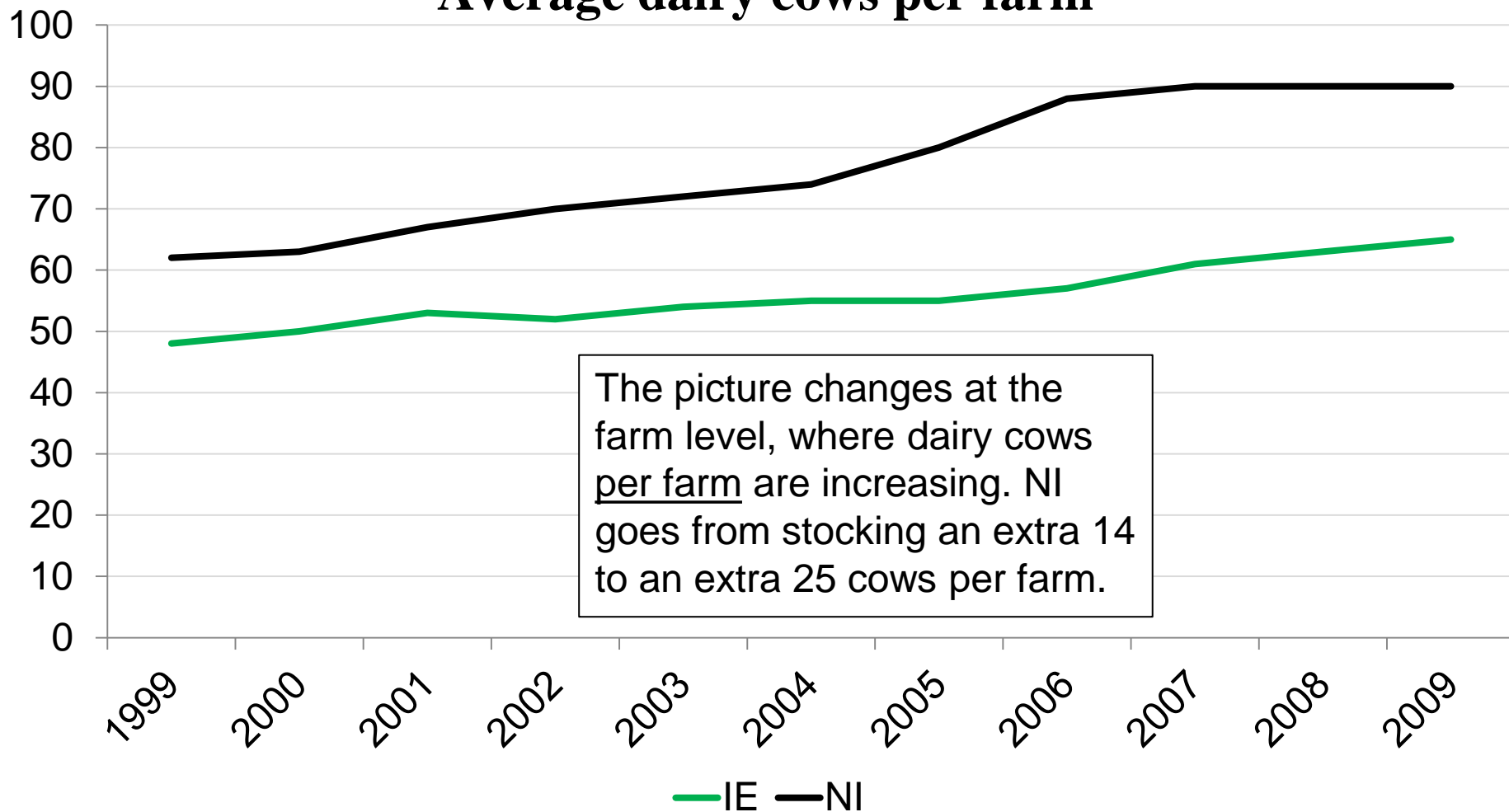
Source: DARDNI, CSO

## Yield (litres) & Concentrates (kg) per cow in NI



*Source:* DARDNI, NI Farm Business Survey

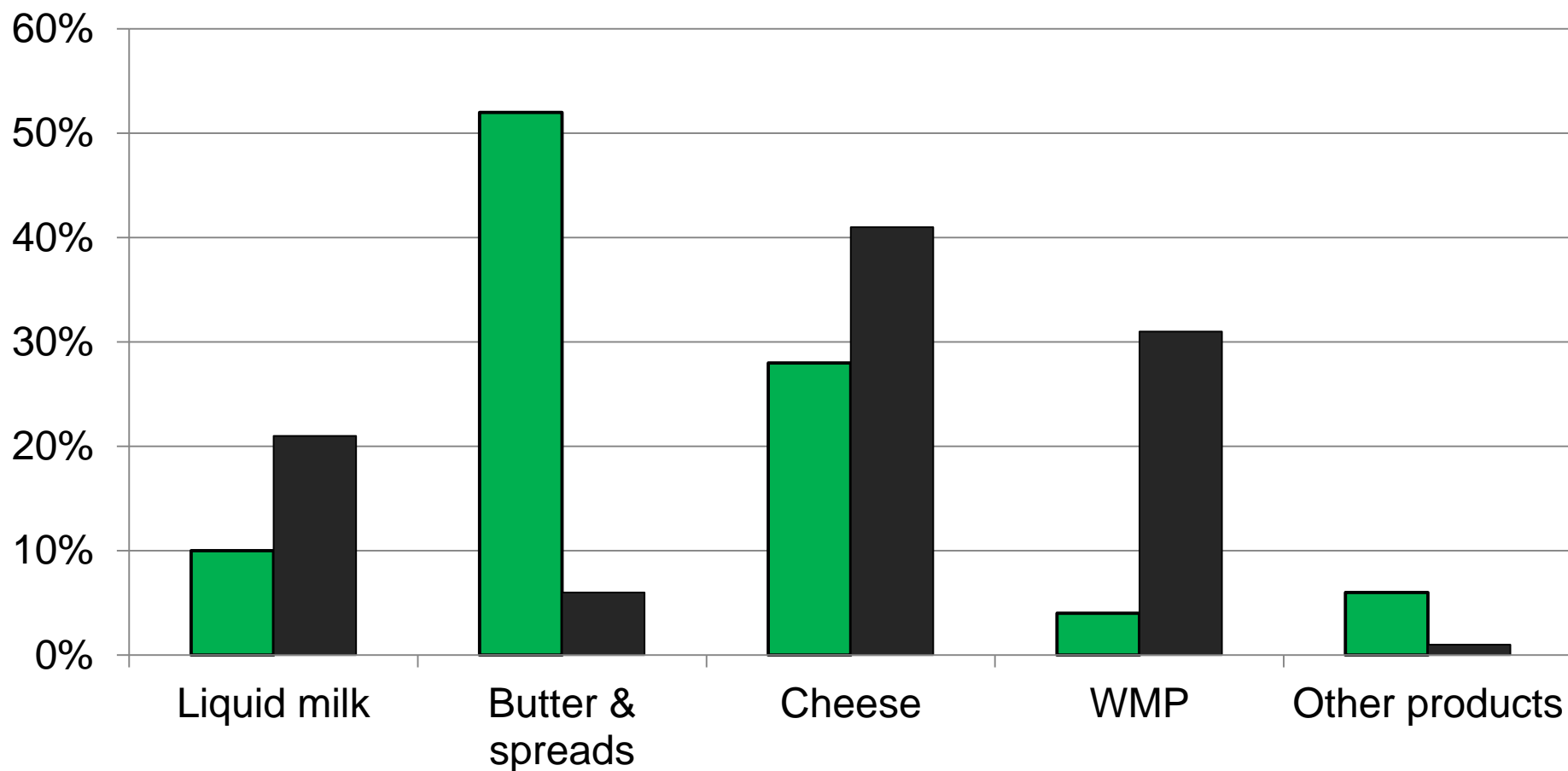
## Average dairy cows per farm



Source: FADN data

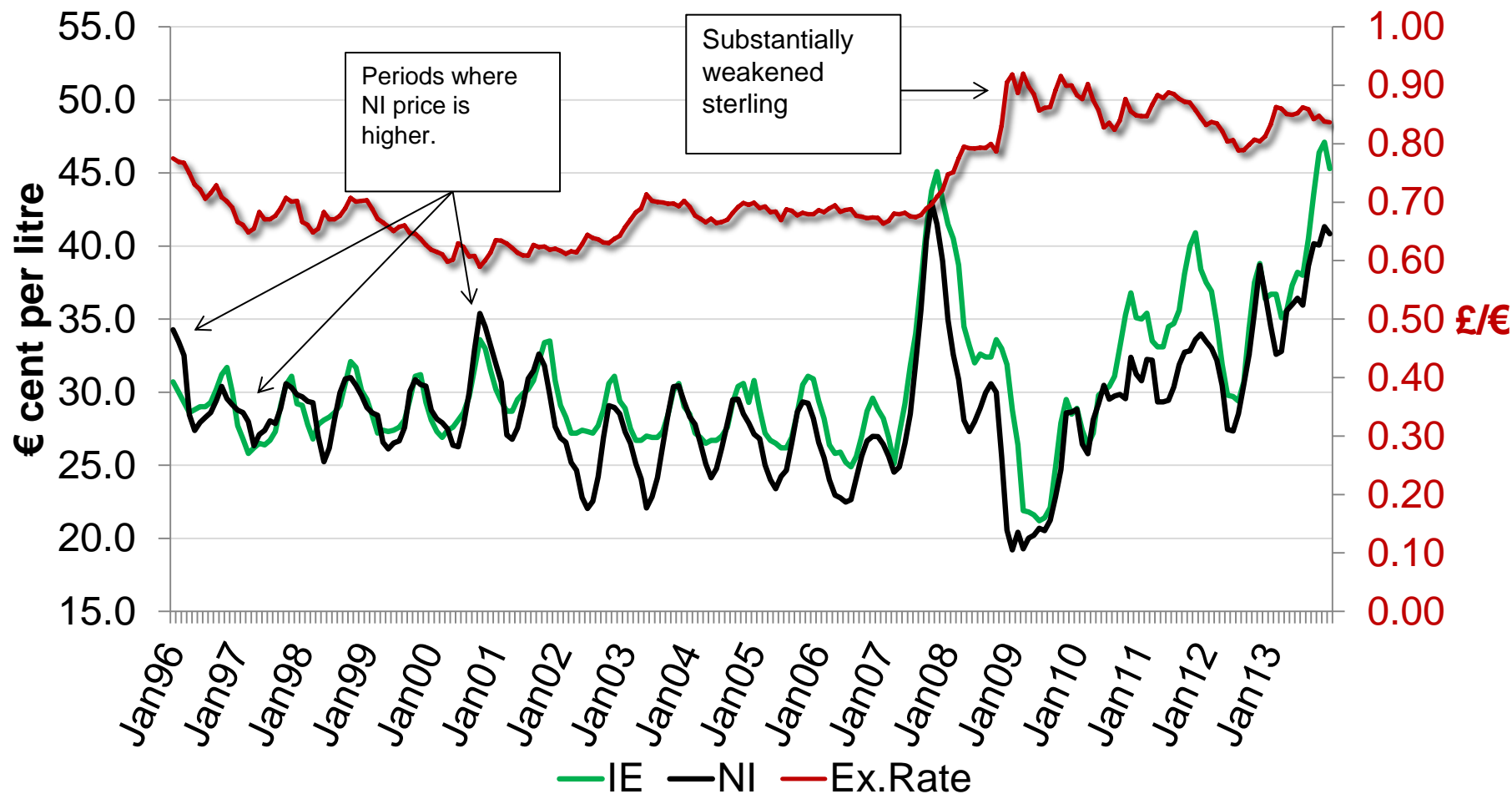
## Whole milk utilisation (%), 2012

■ IE ■ NI



Source: DARDNI, IDB

# Monthly exchange rate and producer prices for milk



Source: CSO, DARDNI, Central Bank of Ireland

# Enterprise Level Analysis



## Dairy enterprise €/ha output & costs

	Ireland	N. Ireland
<b>Gross output</b>	2974	3828
<b>- Direct costs</b>	1043	1620
<b>= Gross margin</b>	1931	2208
<b>- Overhead costs</b>	1,000	1,286
<b>= Net margin</b>	931	922

*Source:* FADN data (averaged over 2007, 2008, and 2009)

## Dairy enterprise €/ha output & direct costs

	Ireland	N. Ireland
<b>Feed</b>	641	1180
<b>Fertiliser</b>	177	176
<b>Other Livestock Costs</b>	209	246
<b>Other costs</b>	16	18
<b>Total Direct costs</b>	1043	1620

*Source:* FADN data (averaged over 2007, 2008, and 2009)

## Dairy enterprise €/ha overhead costs

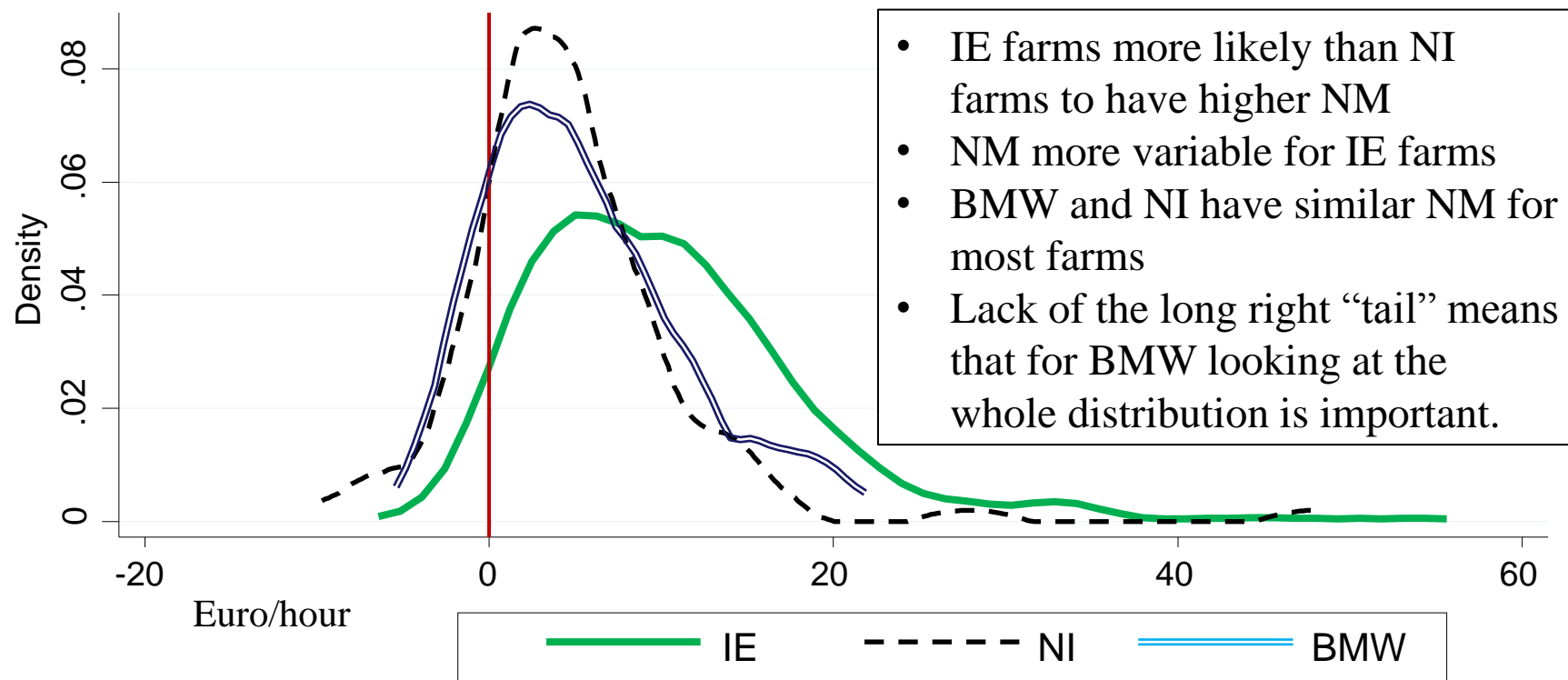
	Ireland	N. Ireland
Depreciation	345	438
Machinery & buildings	163	182
Contract work	121	138
Energy	99	170
Interest	67	66
Wages	72	57
Rent	68	95
Other costs	65	140
<b>Total overheads</b>	<b>1,000</b>	<b>1,286</b>

Source: FADN data (averaged over 2007, 2008, and 2009)

# Analysis of distributions of Net Margin

## Net Margin per Labour Unit

Net margin per hour  
IE - NI



Source: FADN data , 2008

# Conclusions

- **FEED:** NI considerably more reliant on feed than IE, hence NI more exposed to feed price risk. However, feeds are integral to NI's current system; they are driving yields.
- **FERTILISER:** Both countries' systems are grass-based, and fertiliser expenditure is the same on average in NI and IE.
- **OVERHEADS:** Higher in NI, reflecting the relative intensity of the system. However, these make up a smaller proportion of costs than they do in IE, due to larger scale of operations.
- **NET MARGINS:** Net margin per hour is higher in IE than in NI, but individual farms will vary. In general, the BMW region is very similar to NI in terms of net margin per hour.

# Take home messages

- Quota is not a constraint in NI - 38% output growth since 1996
- NI followed a “feed for yield” path to expansion
  - Although average herd size increased at the farm level
- Expansion in NI is associated with higher fixed costs and liabilities than found on Irish farms
- Any advantage in output that NI had in comparison to IE farms was completely wiped away by the extra input costs incurred
- BMW and NI are similar in terms of NM per hour
  - Despite a less intensive system in BMW
- Adverse feed price shocks will have a greater impact on net margin/ha in NI than in Ireland

Thank you for your time!