## Profile of Irish Agriculture & Food using CSO, EStat and Teagasc NFS economic data

**Kevin Hanrahan and Trevor Donnellan** 

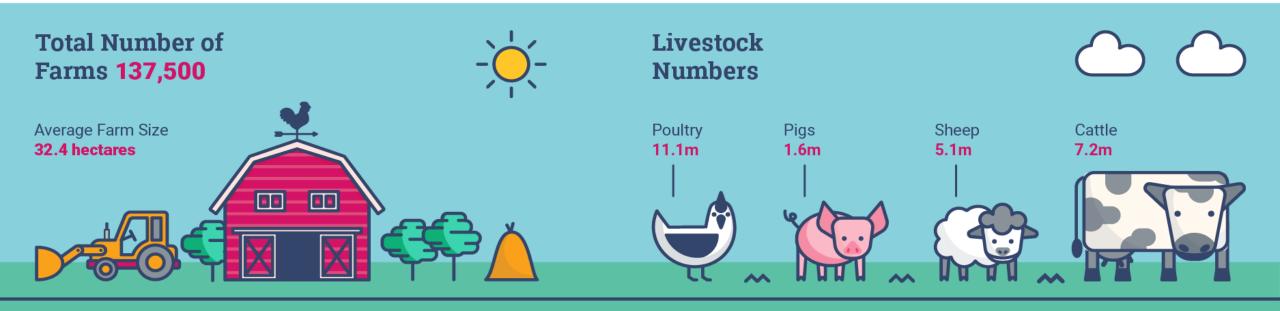


#### Overview

- Structural Characteristics of Irish Agriculture
  - CSO Farm Structures Survey
- Irish agricultural land use
  - CSO/EStat June Survey
- Composition of Irish Agricultural Output at Producer Prices
  - CSO Economic Accounts for Agriculture and Regional Accounts for Agriculture
- Demography of Irish farmers and farm households
  - Teagasc NFS data
- Employment in Irish Agriculture & Food Manufacturing
- Export orientation of Irish agriculture & food industry
- Concluding remarks



#### Structure of Farming in Ireland 2016



#### **Total Agricultural Area** 4,455,800 hectares

Land Usage:



Grassland 4,104,300 hectares



280,400

hectares



Potatoes 9.000 hectares

Other

62,100

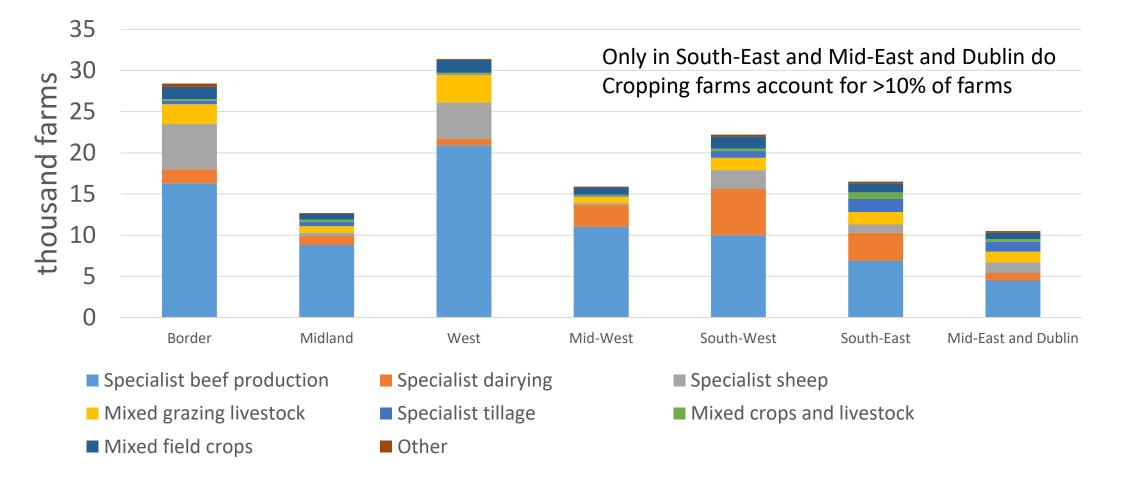
hectares

#### **Farm Labour**



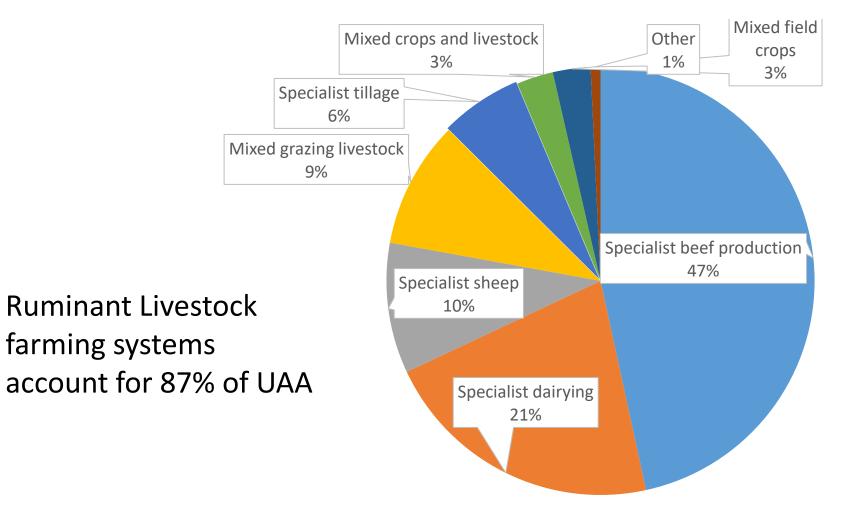
#### Age of Farmholder

## Farm Types by Region (2016)

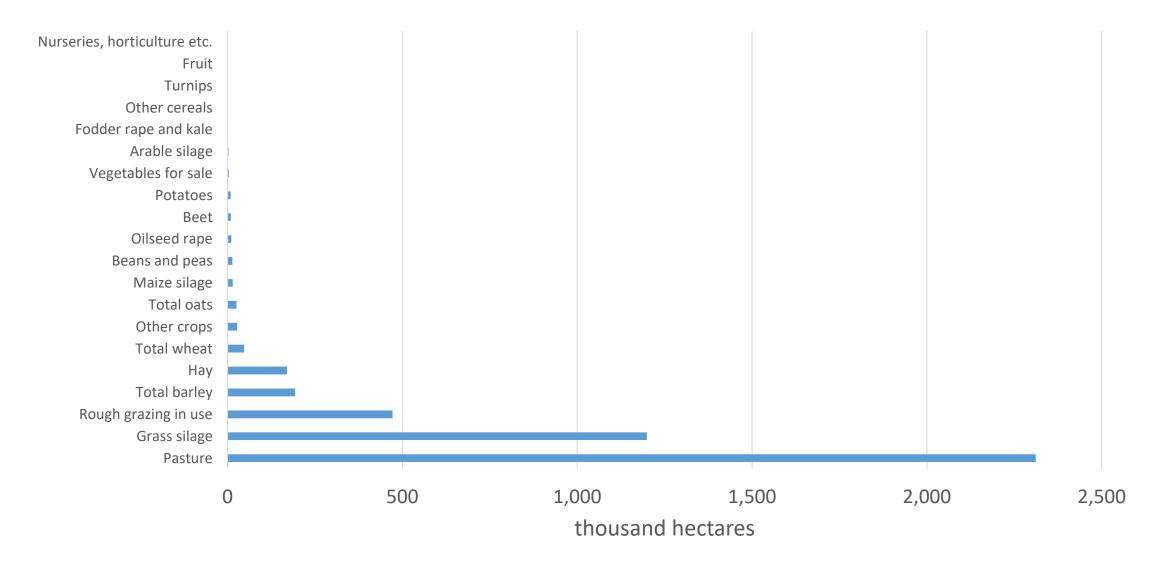


Source: CSO Farm Structures Survey

## Agricultural Land Use by Farm Type (2016)

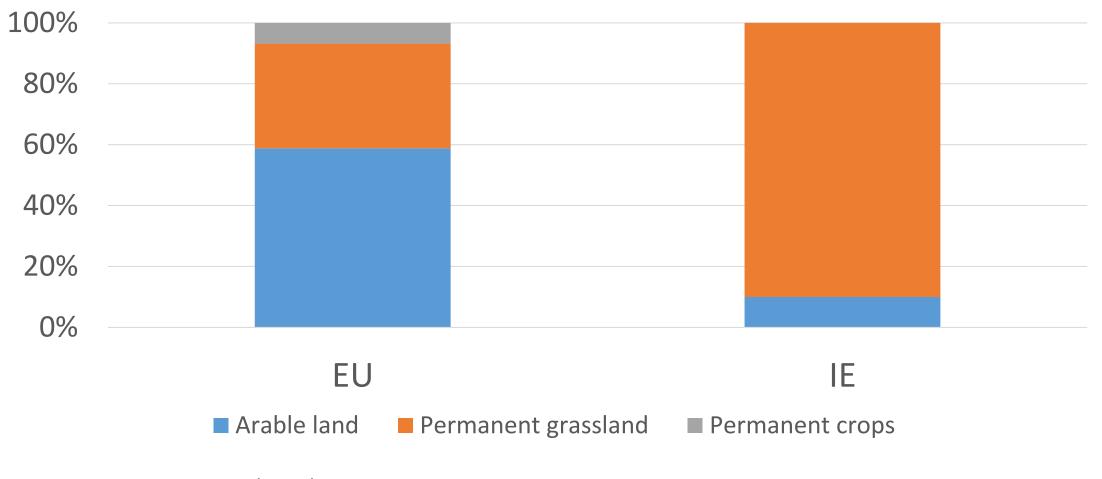


### Irish agricultural land use 2020



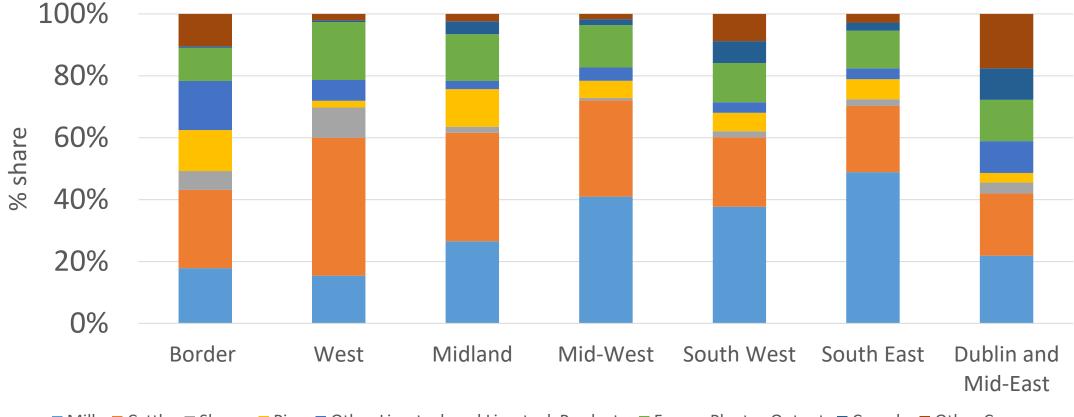
Source: CSO AQA06

#### Comparing Irish and EU agricultural land use: Share of UAA (agricultural land area)



Source: ESTAT apro\_acs (2018)

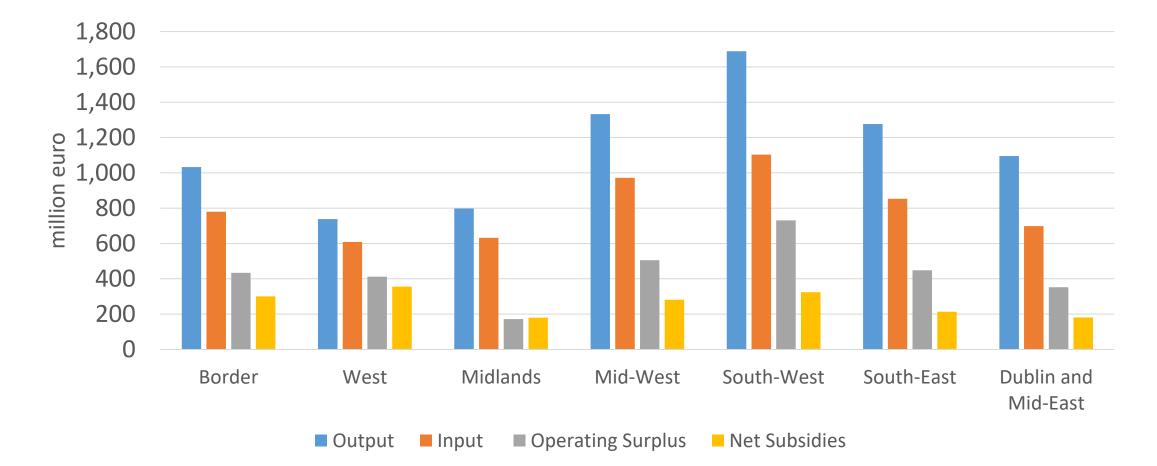
#### Agricultural Goods Output at Producer Prices



■ Milk ■ Cattle ■ Sheep ■ Pigs ■ Other Livestock and Livestock Products ■ Forage Plants - Output ■ Cereals ■ Other Crops

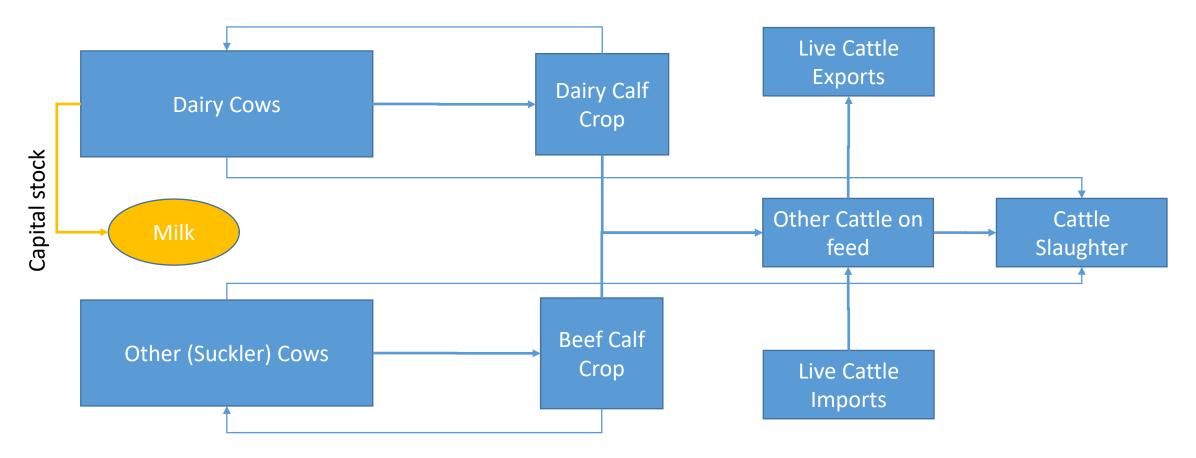
Source: CSO ACA03

#### Regional Accounts for Agriculture 2019 Output, Input and Income



Source: Adapted from CSO Regional Accounts for Agriculture

#### Ireland Bovines: flow chart Breeding inventory is the capital stock with flows of animals (and milk) outputs



Dairy farmers and Suckler farmers

Dairy cows on 18k farms/ Other cows on 73k farms

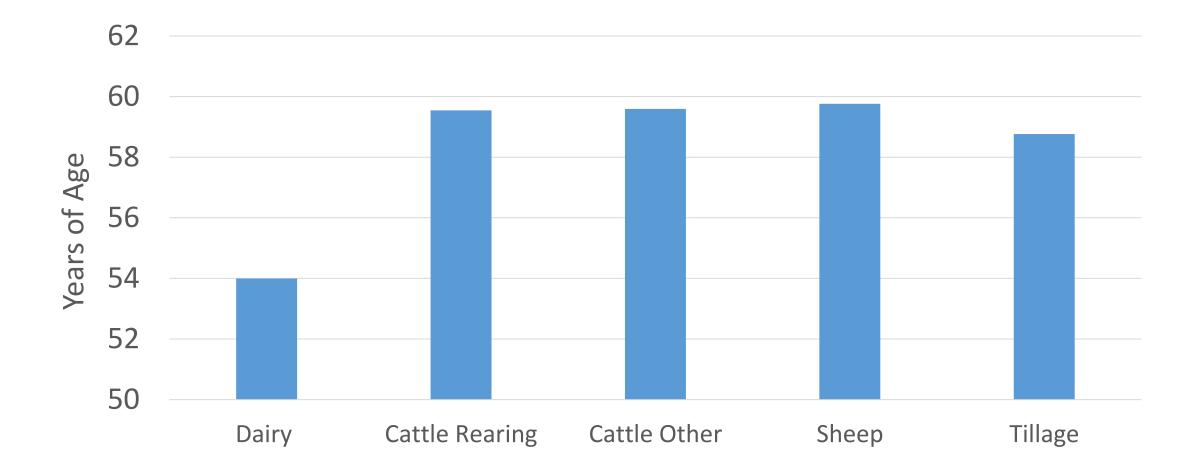
Cattle Other (Finishing) farmers

Other cattle (> 2 years) on 66k farms

# Socio-demographic characteristics of farmers and farm households

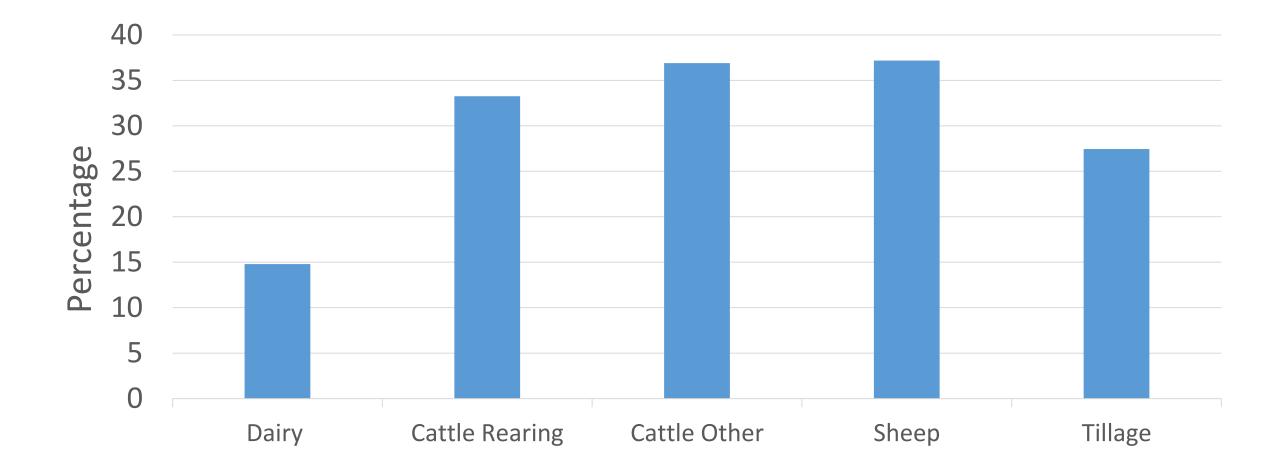
- Based on Teagasc NFS:
  - rich micro-economic dataset
  - Irish component of the EU Farm Accountancy Data Network (FADN)
- Statistically representative annual sample of Irish farms
- Teagasc collects and publishes data on sustainability of Irish farming
  - Metrics across three dimension of sustainability economic, environmental and social
  - developing in tandem with environmental and economic research findings
- <u>Teagasc NFS Reports</u>
- <u>Teagasc Sustainability Reports</u>
- Flint FP7 Project and ongoing MEF4CAP H2020 Project

#### Average age of Farm Operator 2019



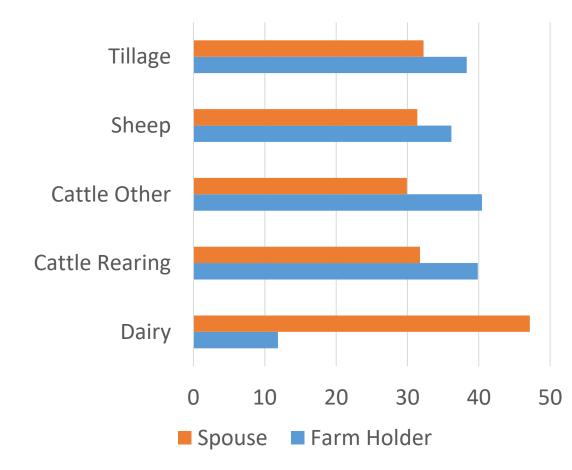
Source: Teagasc National Farm Survey

#### Percentage of farm operators who are pensioners 2019



Source: Teagasc National Farm Survey

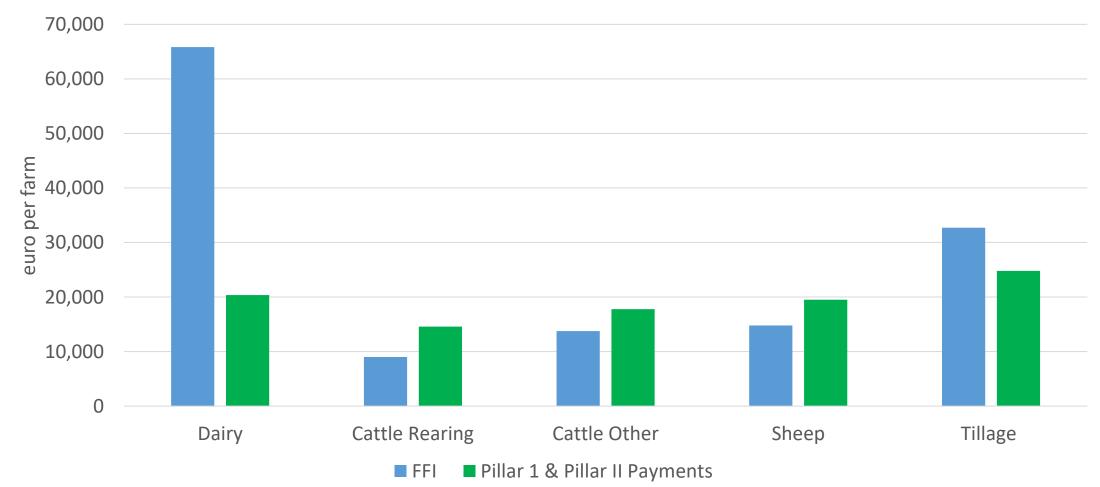
#### Prevalence of Off Farm Work 2019



- Drystock and Tillage farm operators
  - more likely to work off farm
- Dairy farm operators
  - Relatively few work off farm
- Dairy farm spouse
  - most likely to work off farm

Source: Teagasc National Farm Survey

#### Average Family Farm Income Levels per Farm 2019



Source: Teagasc NFS

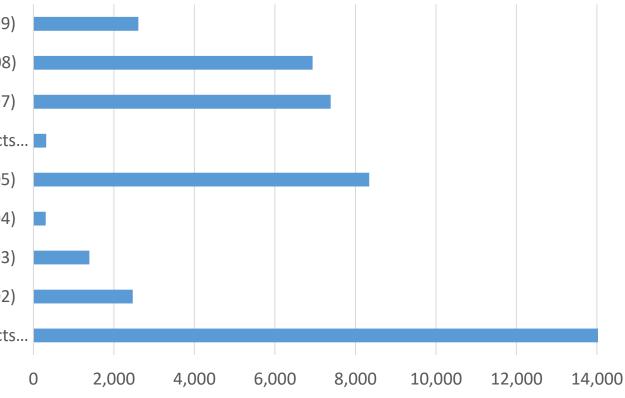
#### Employment in Agriculture: Two sources QNHS and FSS

- Q4 2019 QNHS
  - Employment in agriculture, forestry and fishing
    - 106.9 k
    - 4.5% of total employment (across all NACE sectors)
- 2016 Farm Structures Survey
  - Persons working in agriculture
    - 265.4 k or 157.5 Annual Work Units
  - Vast majority of labour provided by farm owner and farm family
    - Reflects the Irish family farm model
  - Regular non-family labour in 2016
    - 18.5k person (10k AWU)
    - 60% of regular non-family employment was on cattle and dairy farms

#### Food industry

- Detailed Food industry data from Estat Structural Business Statistics
  - employment levels, output, value added, investment
  - Disaggregates Irish food and beverage manufacturing into component parts
- Very limited regional food industry data are published
  - but IGEES analysis provide some insights on regional concentrations

#### Irish Food Manufacturing Employment - 2017



Persons employed - number

Manufacture of prepared animal feeds (C109) Manufacture of other food products (C108) Manufacture of bakery and farinaceous products (C107) Manufacture of grain mill products, starches and starch products... Manufacture of dairy products (C105) Manufacture of vegetable and animal oils and fats (C104) Processing and preserving of fruit and vegetables (C103) Processing and preserving of fish, crustaceans and molluscs (C102) Processing and preserving of meat and production of meat products...

Source: EStat sbs\_na\_ind\_r2 (Structural Business Statistics)

### National and Regional Employment: Food

- Food Sector (C10) in 2017
  - 22.5% of Manufacturing Employment
  - Inclusion of Beverage brings it close to 25%
- Regional concentration of food sector?
  - No official published data (EStat/CSO)
- IGEES study on Brexit exposures (2016)
  - used unpublished CSO data
- Broad regional spread of food sector
  - almost 80% of employment outside Dublin

#### Table 6. Persons Employed in Each Region as a Percentage of Total Employment by Sector<sup>48</sup>

Department of Finance | UK EU Exit – An Exposure Analysis Of Sectors Of The Irish Economy

NACE Sector	Dublin	Midlands	South- East	South- West	West Region	Border	Outside- Dublin
Food & Beverage (NACE 10-12)*	22	27	16	14	5	17	78
Traditional Manufacturing ( NACE 13-17)*	32	26	9	14	5	14	69
Materials Manufacturing (NACE 22 to 25)	14	32	15	14	9	16	86
Pharmachem (NACE 20, 21)*	30	18	12	26	7	6	70
Electrical Equipment (NACE 27)	9	34	10	-	8	38	91

Source: CSO Census of Industrial Production 2012 data. Department of Finance Analysis.

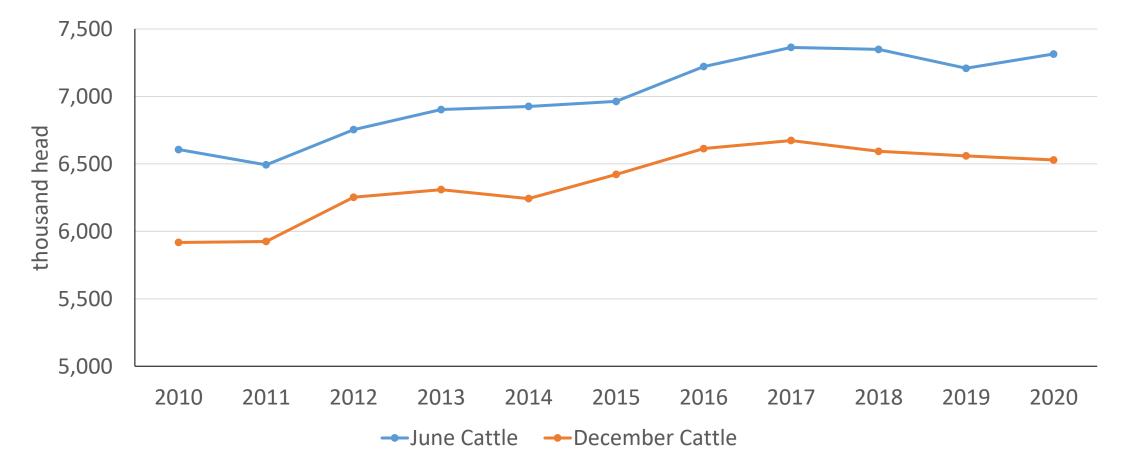
### **Export Orientation of Agri-Food Sector**

- CSO:
  - Supply and Use Balance sheets (limited number of agricultural sectors)
- JRC-IPTS
  - richer set of S&U balance sheets for MS -<u>https://datam.jrc.ec.europa.eu/datam/mashup/PROD\_TRADE\_USE/</u>
- Irish agri-food trade is atypical
  - importance of exports in meat and dairy commodities use
  - net importer for most (but not all) Cereals and Oilseeds
  - also a net importer of Fruits and Vegetables
- Why is Ireland such a large exporter of certain commodities?

### **Concluding comments**

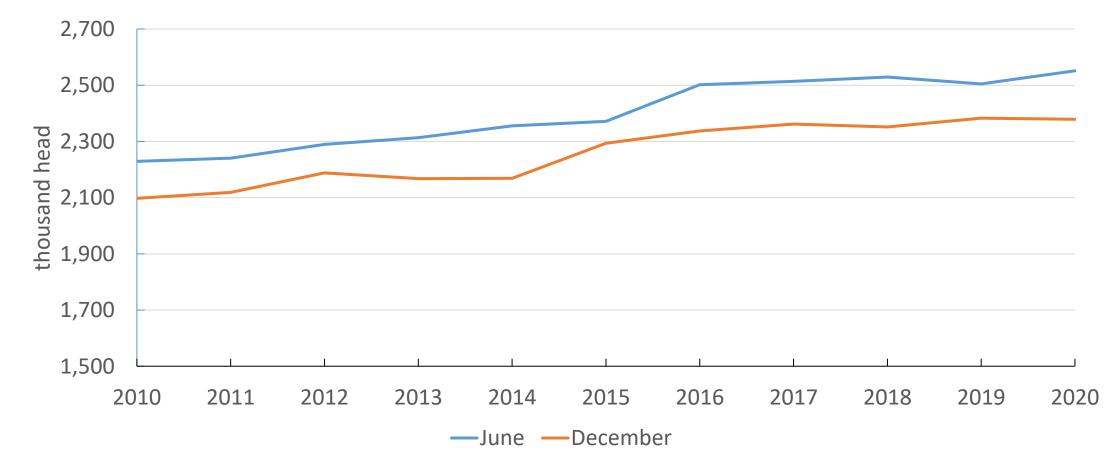
- Irish agriculture land use and the products farmers' produce are a function of
  - Supply side (agronomic realities land quality, climate, human and financial capital )
  - Demand side (food needs of Irish, European and increasingly global society)
- Externalities of agricultural production in Ireland (and elsewhere)
  - a market failure a failure of a market to exist
- Evolving societal demands for something different from agriculture & food
  - But need to be reflected in markets so that farmers in Ireland and elsewhere respond
- Current market and policy signals don't reflect externalities
  - We are telling farmers to **prioritise producing** food
- Therefore we shouldn't be surprised that this what they do

#### Total Cattle Numbers – Ireland 2010-2020



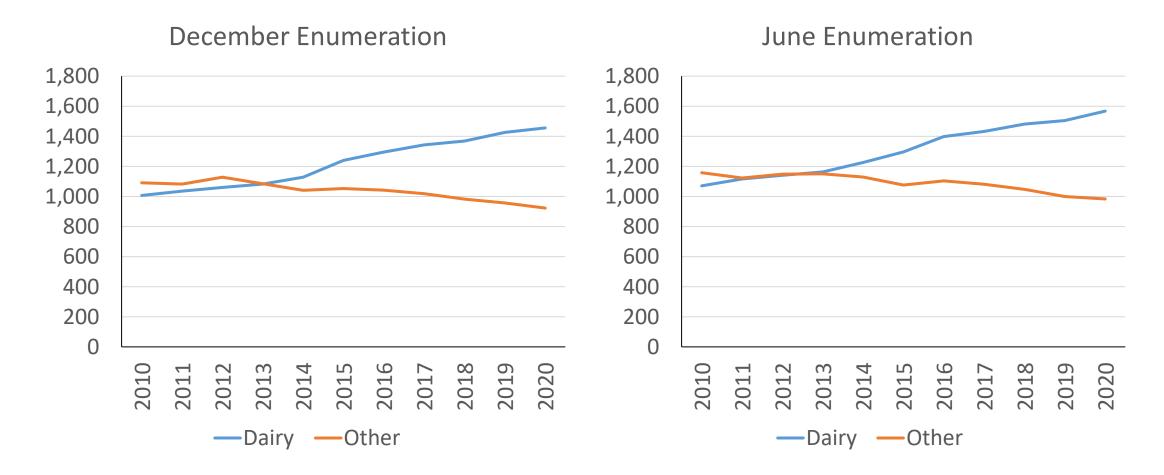
Source: CSO AAA06, AAA08 & AAA10

#### Total Cow Numbers – Ireland 2010-2020



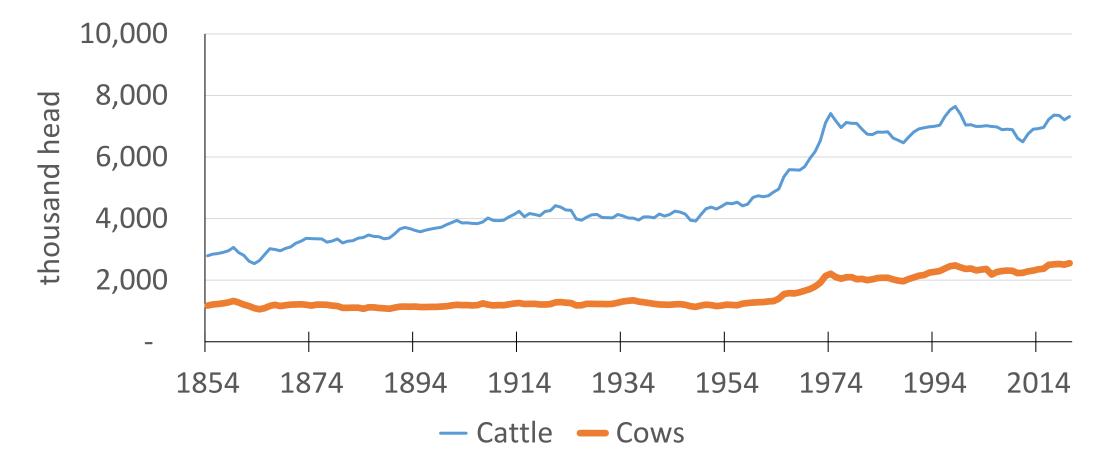
Source: CSO AAA06, AAA08 & AAA10

#### Cow Inventories – December and June



Source: CSO AAA06, AAA08 & AAA10

## Historical Irish Cattle & Cow inventories (June 1854-2020)



\* Data on other agricultural activities available from CSO "Farming Since the Famine 1847 - 1996" and CSO databases. Cows = sum of Dairy and Other (beef/suckler) Cows