



**AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY**

The Irish Agriculture and Food Development Authority

# The price and income volatility challenge for Irish Agri-Food in a changing policy environment



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Teagasc

Managing Price Volatility  
in the Irish Dairy Sector

Cork Institute of Technology, 3<sup>rd</sup> September 2012

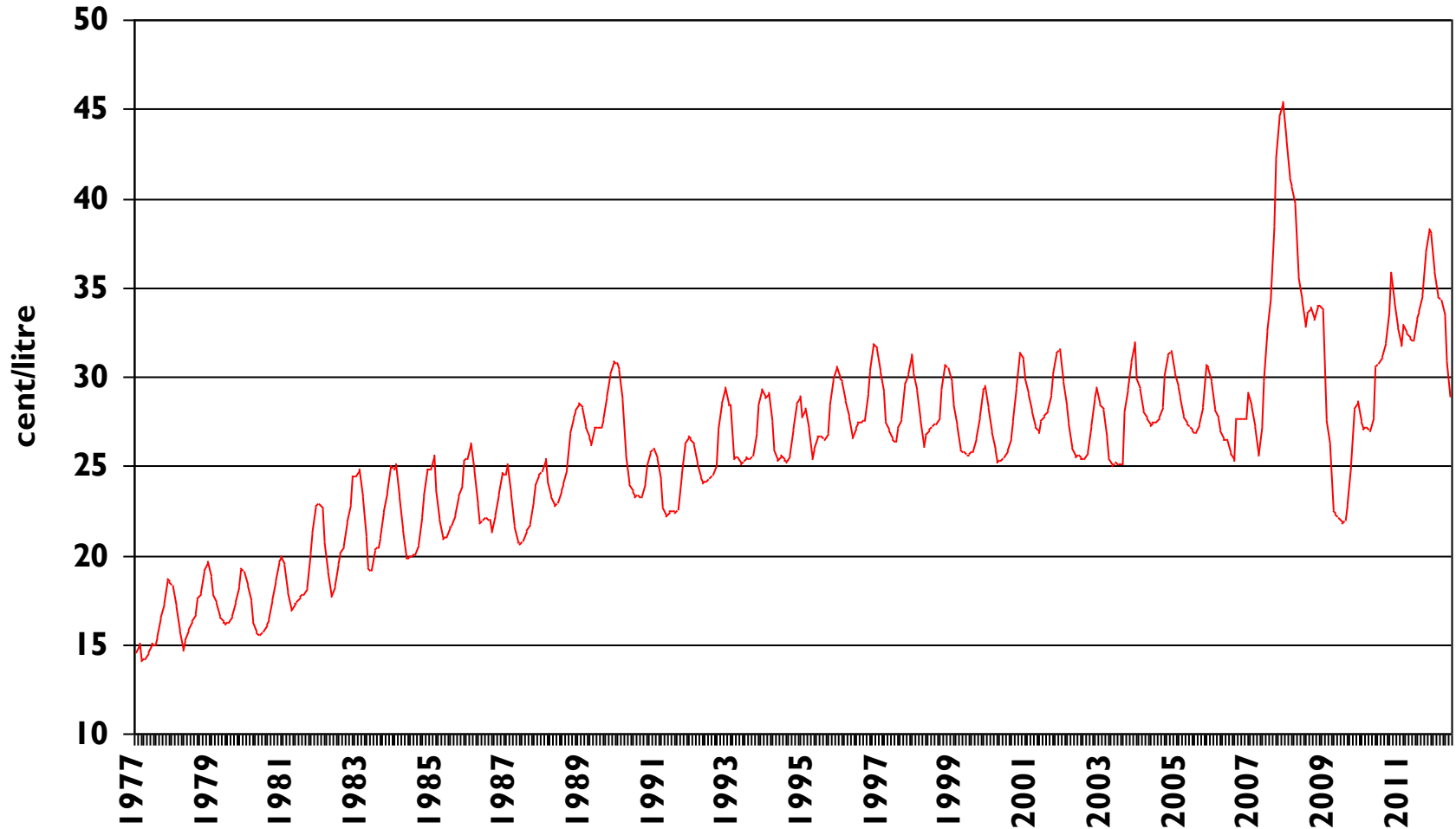
# Outline

- Agricultural price and income volatility and Irish dairy farming
- CAP towards 2020: What role for policy in mitigating price and income risk in agriculture
- AgRisk Stimulus Project

# Dairy price and income volatility

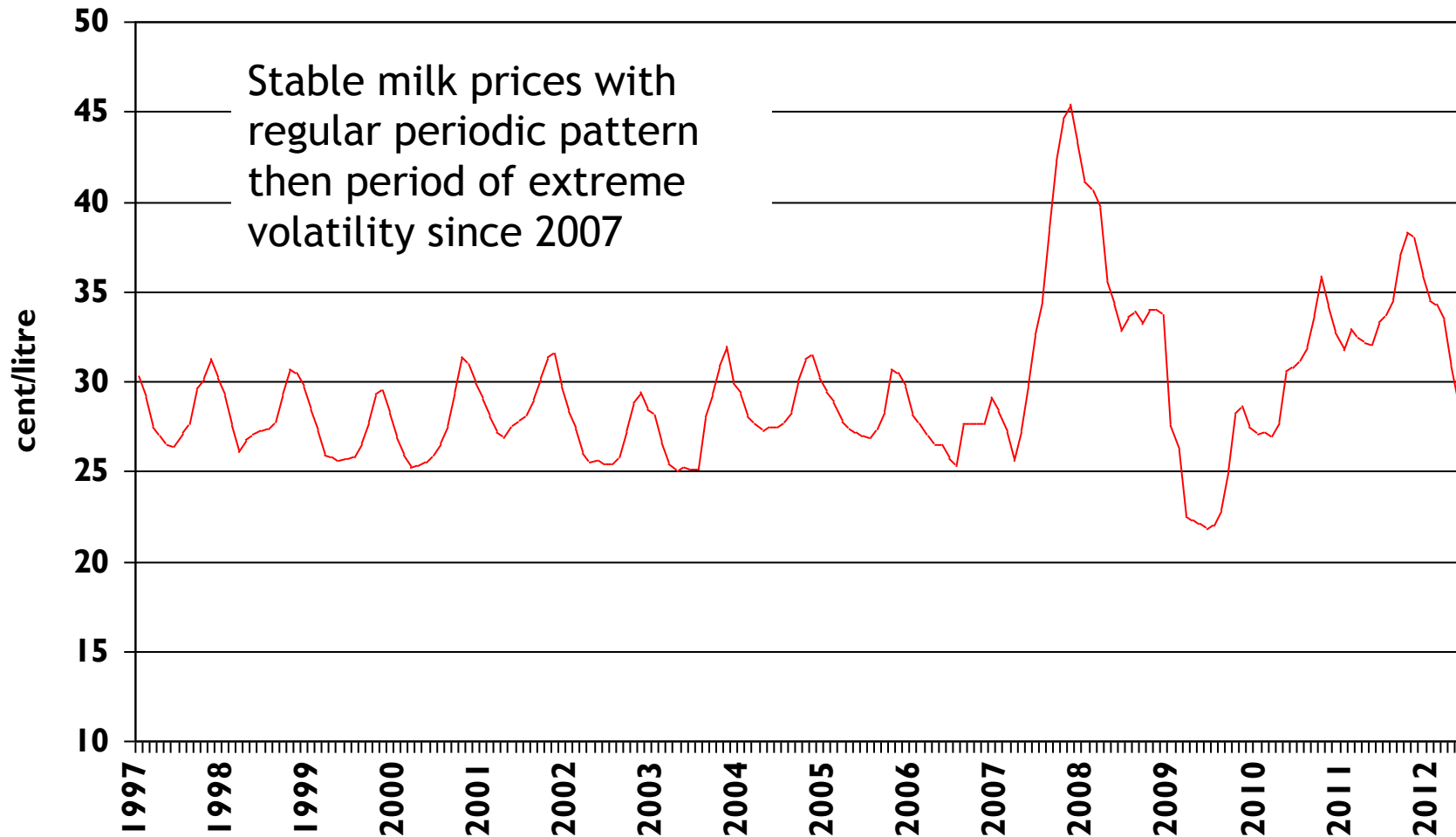
- Data on input and output prices and incomes reveals an apparent increase in the magnitude of the variability of input and output prices
  - Technical definitions of volatility will follow in Declan's presentation
  - Literature on whether there has been an increase in the volatility of agricultural output prices depends on the period studied
  - Focusing on last 15 years volatility has increased

# Monthly Irish milk prices (1977-2012)



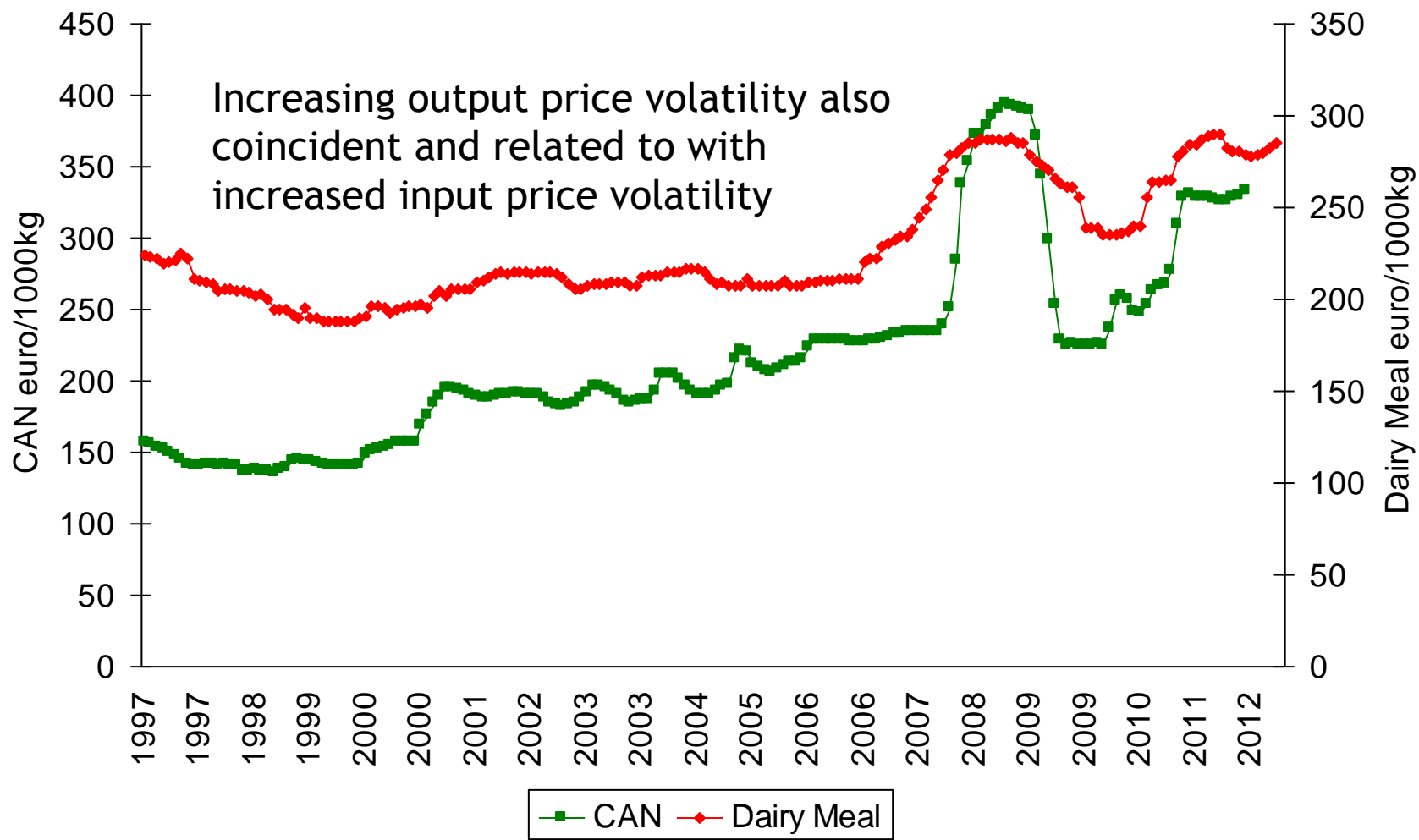
Source: DG Agri

# Monthly Irish milk prices (1997-2012)



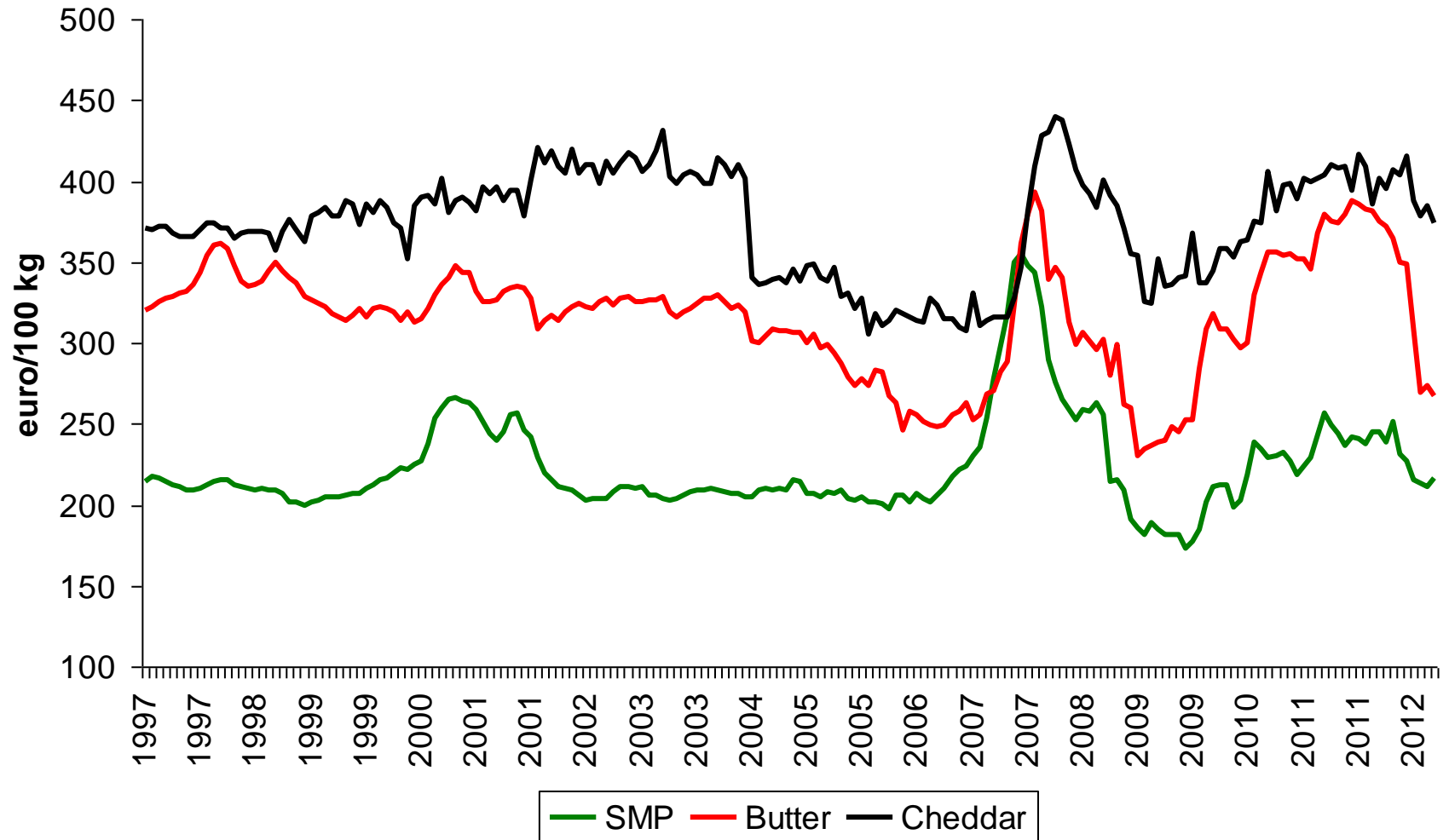
Source: DG Agri

# Monthly Irish Input Prices (1997-2012)



Source: Central Statistics Office

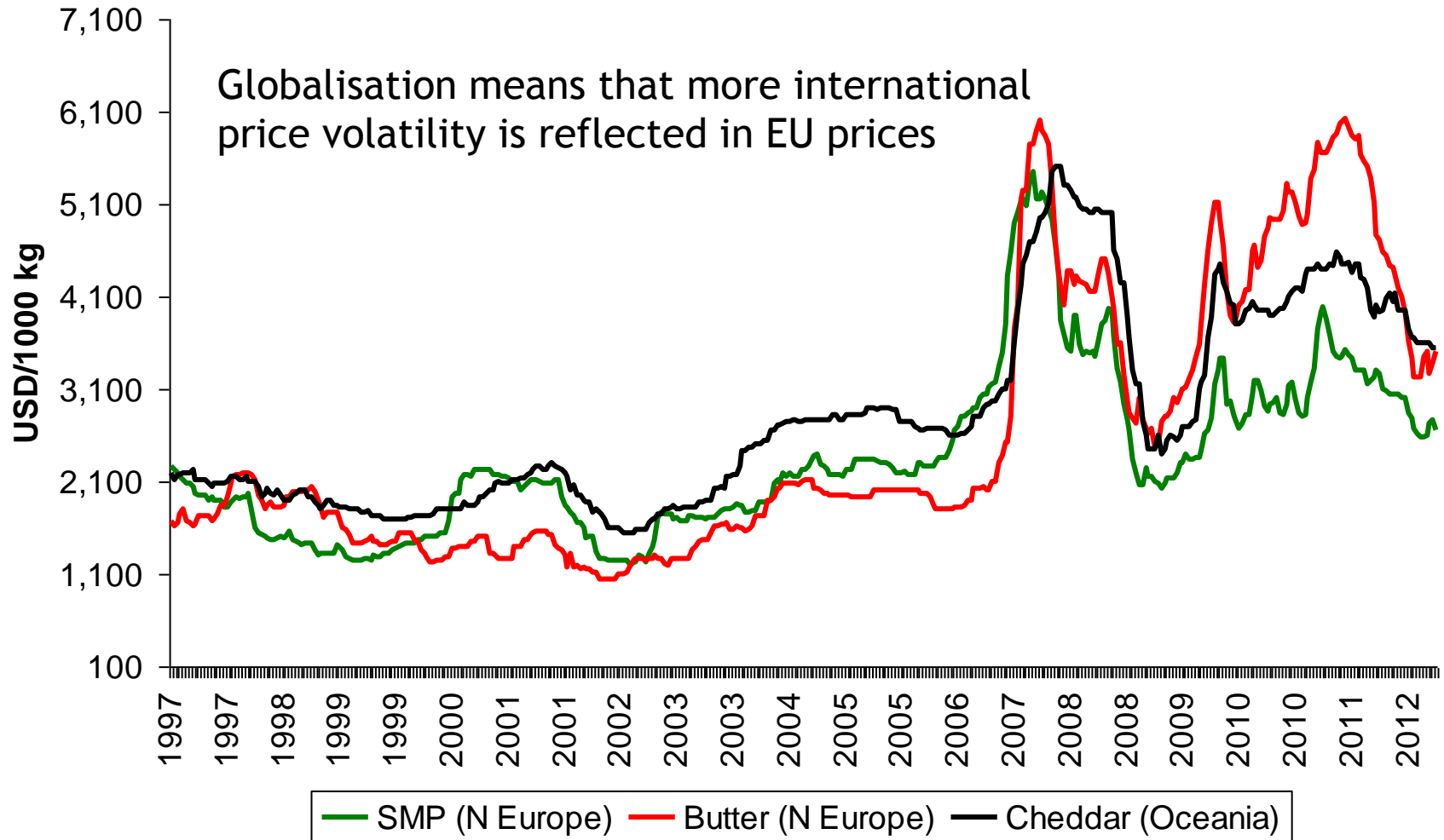
# Monthly EU average Dairy Commodity Prices (1997-2012)



Source: DG Agri



# International Dairy Commodity Prices (Fortnightly 1997-2012)

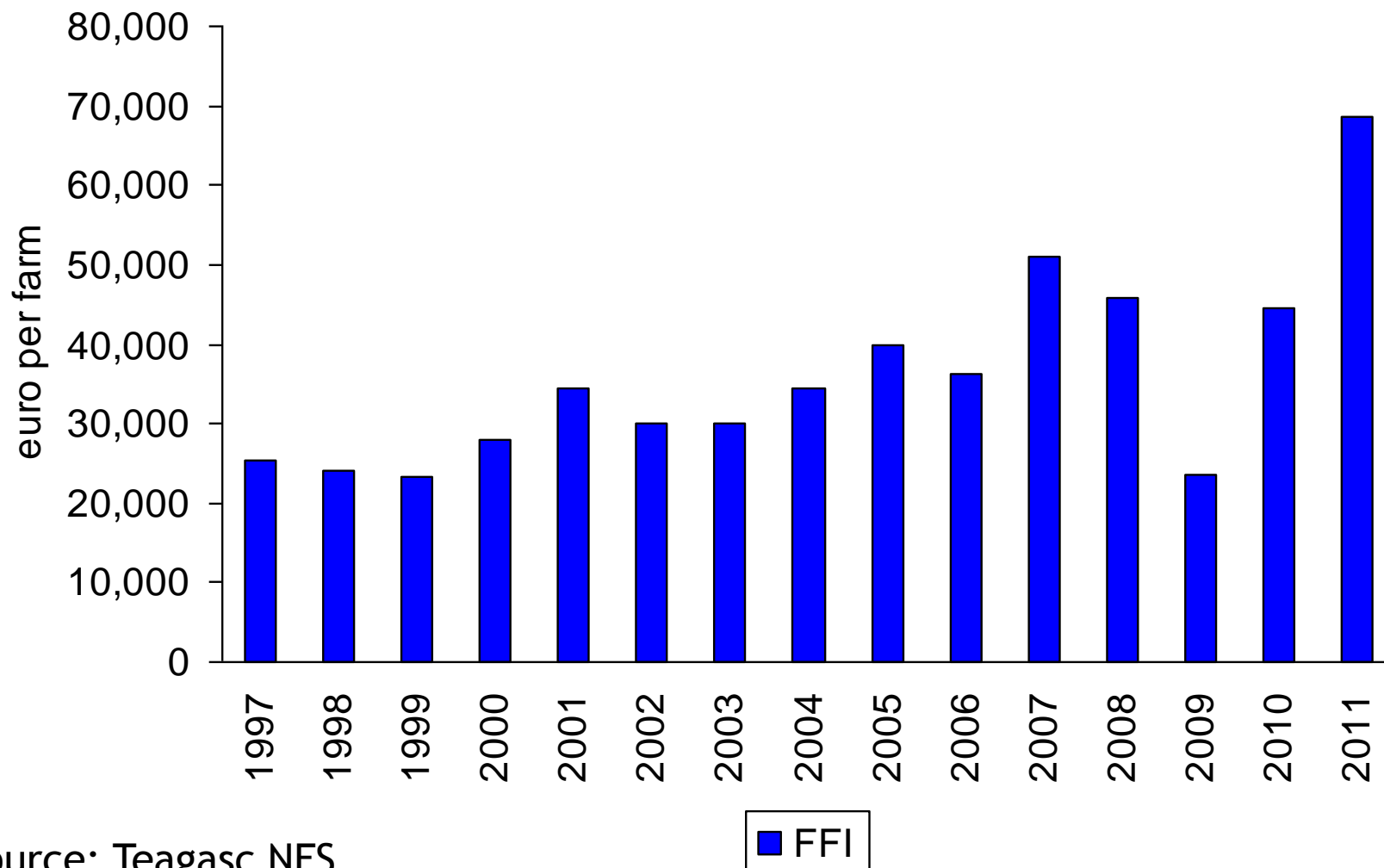


Source: U. Wisconsin

# Volatility in Prices and Incomes

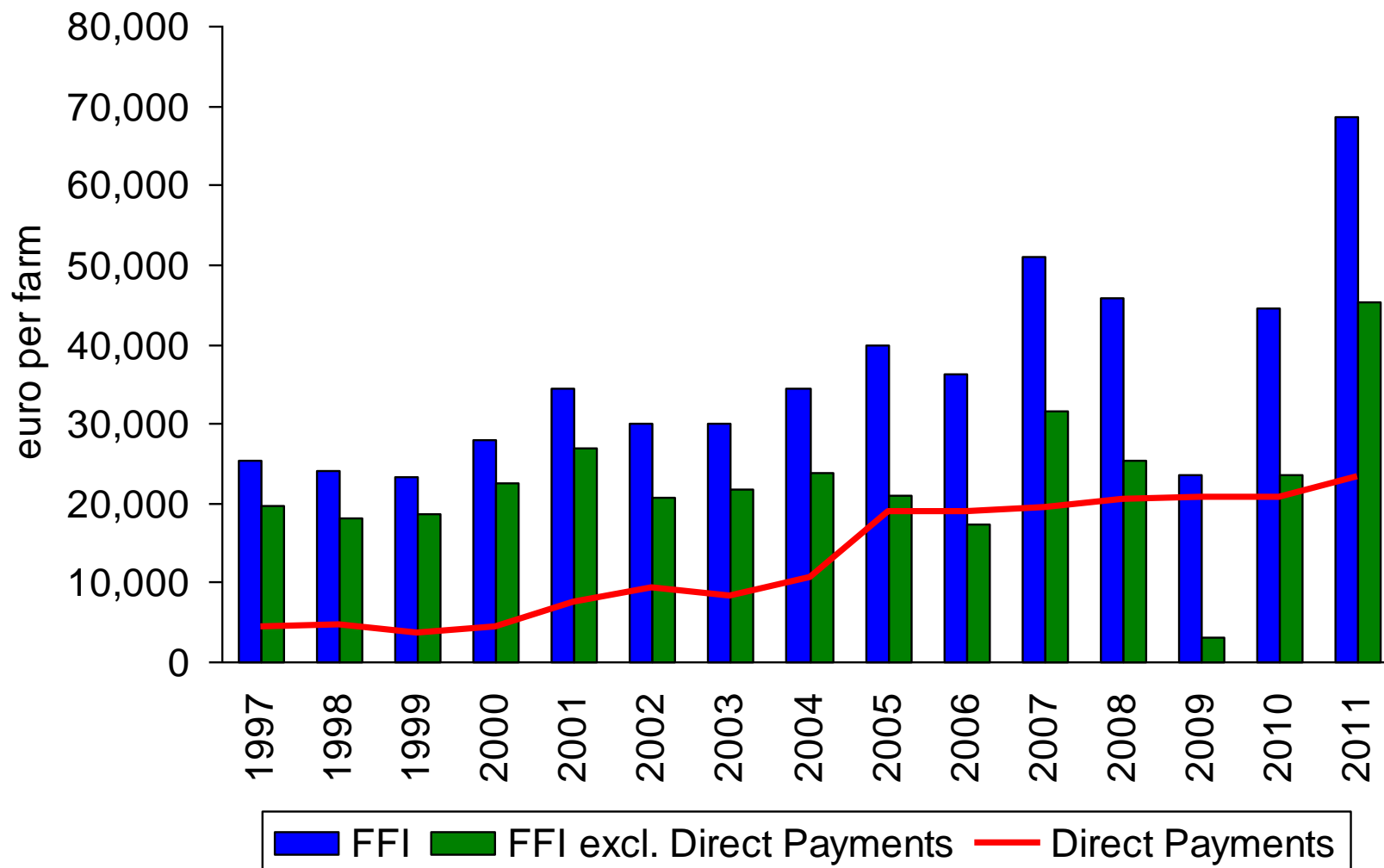
- Volatility in input and output prices can lead to volatility in farm incomes
- The impact of recent market price volatility on Irish dairy farm Family Farm Income (FFI) can be shown using NFS data
  - These results are average results for the dairy system and individual farm results will be different
  - Highlights the importance of direct income supports to dairy farm income in a volatile environment

# Volatility and Irish Dairy FFI



Source: Teagasc NFS

# Importance of Direct Payments



Source: Teagasc NFS

# Risk Management in Irish dairying: Mitigating price volatility

- In 2011 NFS Autumn survey specialist dairy farmers were asked about what were the most important sources of risk faced
  - Institutional, Production, Market, Financial or Personal ?

# Importance of Risk Categories At Farm Level

Change in environmental standard, change subsidies  
(e.g. Institutional risk)

Weather variability, pest and animal disease  
(e.g. Production risk)

Price volatility  
(e.g. Market risk)

Change in interests charged on the debt of the farm  
(e.g. Financial risk)

Health, accidents, lifestyle, successor  
(e.g. Personal risk)

# Risk Management in Irish dairying: Mitigating price volatility

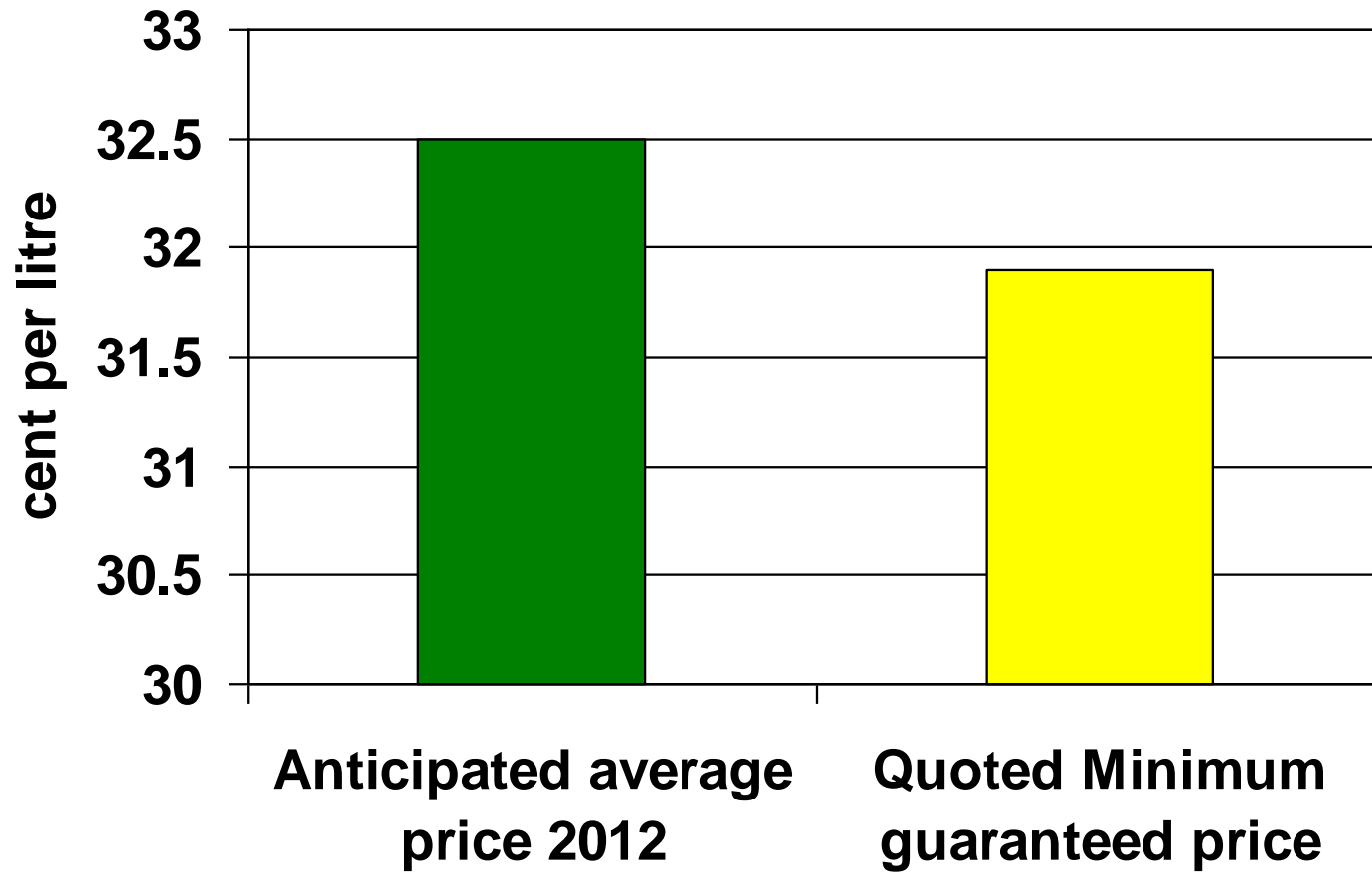
- In 2011 NFS Autumn survey specialist dairy farmers asked about what were the most important sources of risk faced
  - Institutional, Production, Market, Financial or Personal ?
- Results from 2011 survey show that for 8 out of 10 specialist dairy farmers market related risk is the first or second most important source of risk at farm level

# Risk Management in Irish dairying: Mitigating price volatility

- Specialist dairy farmers were then asked about their propensity to enter into forward contracts (as a way of mitigating market risk associated with volatile milk prices)
- Two Questions asked
  - What they thought the average 2012 milk price would be?
  - And then, the same farmer was asked what would be the minimum average price they would accept to forward sell 20% of their milk in 2012?



# Farmer's Expectation (in Autumn 2011) of 2012 price and min. 2012 price for 20% forward contract



Source: Teagasc NFS

# Why is volatility a problem for farmers and industry

- Increases the risk premium attached to investment decisions
- Lowers rate of investment in agriculture and thus future rate of agricultural growth
  - Important given FH2020 targets and possible future environmental challenges
- At processing level excessive volatility and its expected effects hinder long-term planning and discourages investment in plant, product innovation and brand promotion and customer relationships

# Policy, price and income volatility

- Renewed emphasis on the role of agricultural policy in managing the risks faced by farmers and others in the agri-food supply chain
- Volatility in agricultural input and output market prices and incomes forms part of the context of current CAP reform
- Volatility and risk management measures under both Pillar I and Pillar II
  - Pillar I – sCMO regulation proposal
  - Pillar II – Risk Management (Art 37-40) in Rural Development
- Following Lisbon Treaty CAP reform process follows “Ordinary Legislative Procedure”

# CAP Reform Proposals

- Pillar I
  - No return to strong market management as a way of stabilising prices
  - No return to supply side management as a way of stabilising prices
    - Intervention prices maintained at current low safety net levels
    - APS retained though with tougher disciplines
  - Basic Income Payment's role in stabilising farm incomes the major element of risk mitigation policy in Pillar I
- Provisions for use of emergency funds in the event of large scale animal/plant disease crises
- Strengthened role for PO and APO and “contractualisation” along lines recommended in High Level Expert Group report

# CAP Reform Proposals

- **Pillar II**
  - Risk Management (articles 37-40)
  - Subsidisation of agricultural insurance against climactic risk, animal or plant diseases
  - Subsidisation of mutual fund compensation in the event of animal or plant disease outbreaks or environmental incident
  - Subsidisation of income stabilisation tool
    - All must be WTO compatible
- **EC impact analysis emphasises the need to carefully design policy interventions so as to reduce problems of moral hazard**
- **Support for education and training in the use of market based instruments**
  - Agricultural derivatives contracts and forward contracts

# Income Stabilisation Tool (IST)

- Form of mutual fund with compensation to farmers who experience severe drops in income
  - Need not be related to disease or climactic incidents
  - Granted if drop in income  $> 30\%$  of previous 3 years or Olympic average of previous 5 years
  - Payments to compensate for no more than 70% of the loss
  - Maximum support from Community funds of 65%
- IST Would be demanding in terms of information required to operationalise (income information from all participants)

# Current State of Reform process

- First reading of CAP regulations proposed by EC not yet complete
- EP COMAGRI members have tabled 7415 amendments to the 4 EC regulation proposals
  - Including 2227 amendments to the EC sCMO proposals
  - 2127 amendments to the Rural Development regulation
  - COMAGRI rapporteurs and shadow rapporteurs will consolidate these into amendments that will be voted on
- Risk Management and volatility related elements will be part of the reformed CAP
- It will be necessary to have capacity to understand impact of new policies on volatility and risk in Irish agriculture

# AgRisk: Volatility and Risk in Irish Agriculture

- DAFM Stimulus Research Project I0/RD/Agrisk/TMFRC/715
- Two year economic research project led by Trevor Donnellan involving economists from Teagasc, CIT and UCC
- The project aims to better understand the volatility of Irish agricultural (particularly dairy) input and output prices, impact on production and incomes
  - Farm level
  - Industry level
- Evaluate the impact/usefulness of different risk management tools (incl. both market based and policy based) in mitigating the impact of volatility on Irish agriculture



# AgRisk: Volatility and Risk in Irish Agriculture

- Central to the project are outreach efforts to industry stakeholders
- This workshop is in part designed as one of these efforts
- These stakeholder events are designed to
  - Communicate research results
  - To gain understanding of the challenges posed by price volatility in Irish agriculture and the Irish dairy industry
  - To explore the potential of risk management and mitigation measures at farm and industry levels

# Thank – You