



## **Dairy markets and Supply Security** **- Anne Randles**

SDT Autumn Conference  
UCC 6<sup>th</sup> September 2012



## Presentation outline

- > Key Supply Security drivers for change
- > The challenges and choices for global sustainability
- > Major failings in the food system today
- > How is dairy faring ? – the world market for milk and dairy
- > Conclusion



# **SUPPLY SECURITY DRIVERS**

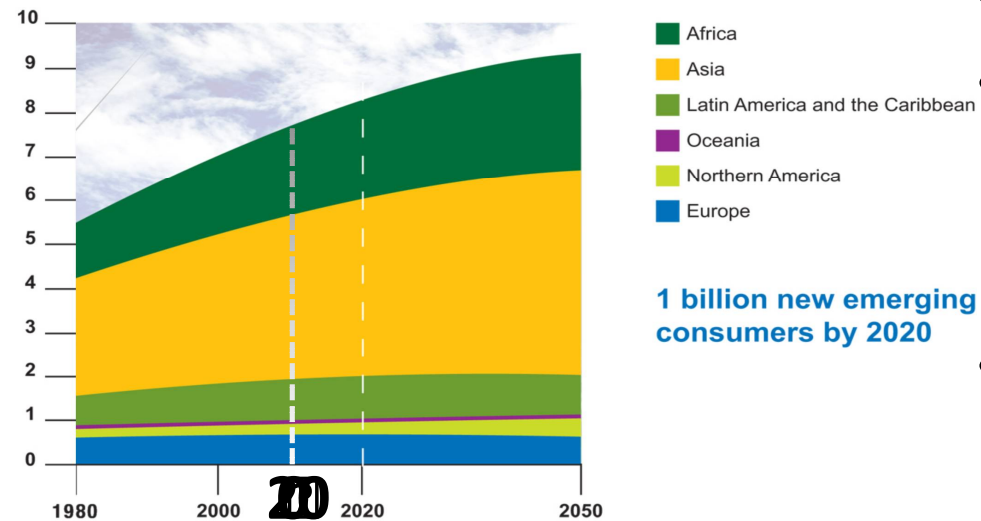


## Key Supply Security drivers for change

- > Population growth
- > Urbanisation and greater prosperity
- > Competition for land, water and energy
- > Effects of climate change



# Market Growth Drivers - World Population Trends & Urbanisation



Source: United Nations

- By 2050 the world's population will peak at c. 9 billion
- Major growth will be in developing countries
- More urban and richer world
- Urbanization will continue at an accelerated pace
  - c. 70% of the world's population will be urban (compared to c 50% today)
- Income levels will be many multiples of what they are now
- Food production to increase by 70% to meet higher demand



# **FOOD SECURITY CHALLENGES AND CHOICES**



## The Foresight report – The future of Food and Farming

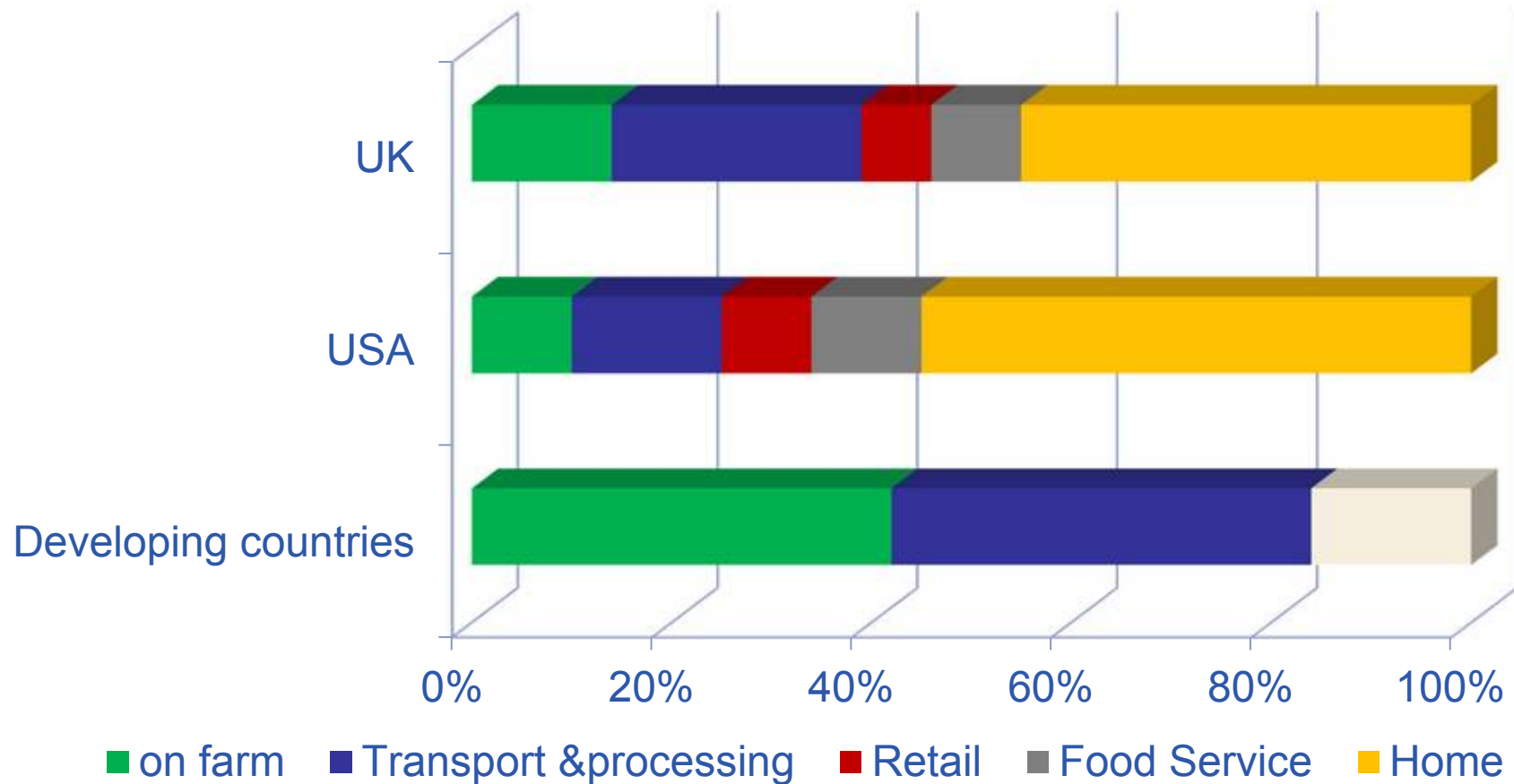
### The Challenges and Choices for global sustainability

- > Balancing future demand and supply sustainably – to ensure food prices are affordable “SUSTAINABLE INTENSIFICATION”
- > Ensuring stable food supplies – and protecting the most vulnerable from volatility that does occur
- > Achieving global access to food and ending hunger
- > Managing the contribution of the food system to the mitigation of climate change
- > Maintaining biodiversity and ecosystem while feeding the world



## Food waste – an unsustainable modern practice

An estimated 30% of food produce is never consumed







# **TODAY'S FAILINGS**



## Today's major failings – already not starting from an adequate position

- > Currently, one billion people cannot even satisfy their basic needs in terms of food energy
  - > Another billion could be suffering from “hidden hunger”
- > Add to this the billion or so people who don't have access to sufficient water
- > And 1.5 billion don't have access to regular supplies of energy
- > Plus, many systems of food production are unsustainable



# **THE SITUATION WITH DAIRYING**

# Market Growth Drivers

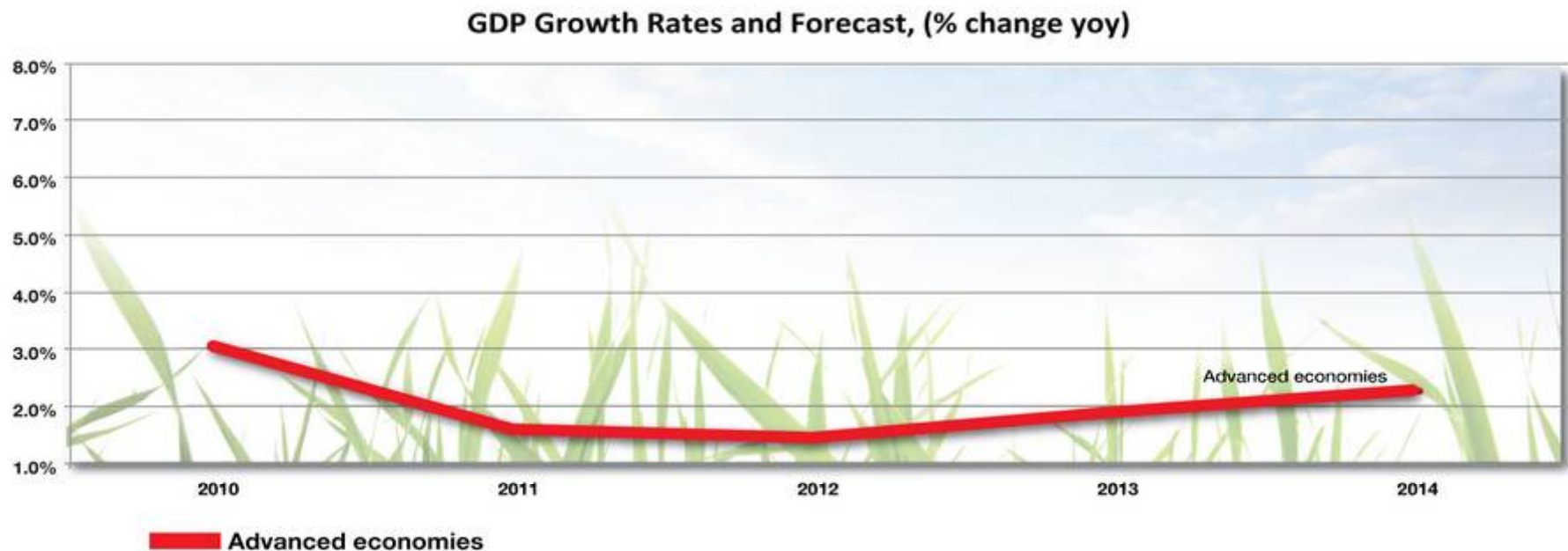
- Population Growth
- Rising Per Capita Income/Growing Middle Class
- Urbanisation
- Westernisation of Eating Habits
- Quest for Value
- Globalisation of brands
- Government Supported Campaigns





## Market Growth Drivers – Global GDP Growth

*Modest GDP growth projections for advanced economies to 2014*

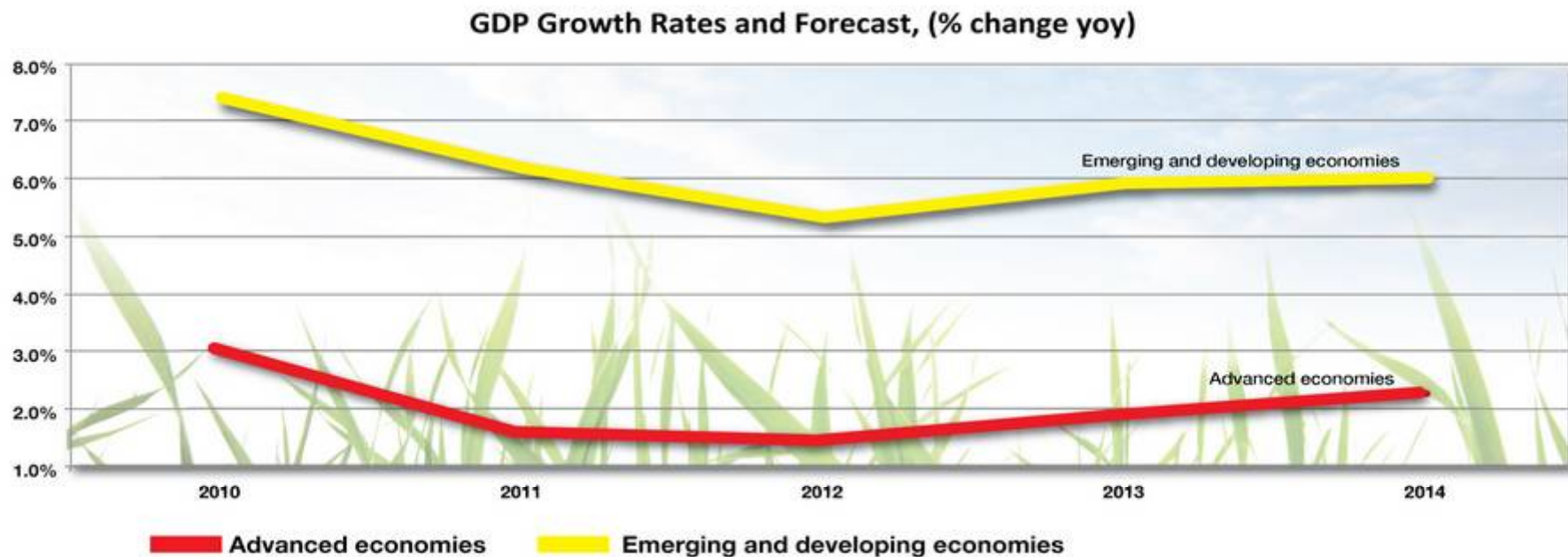


*Advanced economies – little growth*



## Market Growth Drivers – Global GDP Growth

*Significantly higher growth forecast for emerging economies*



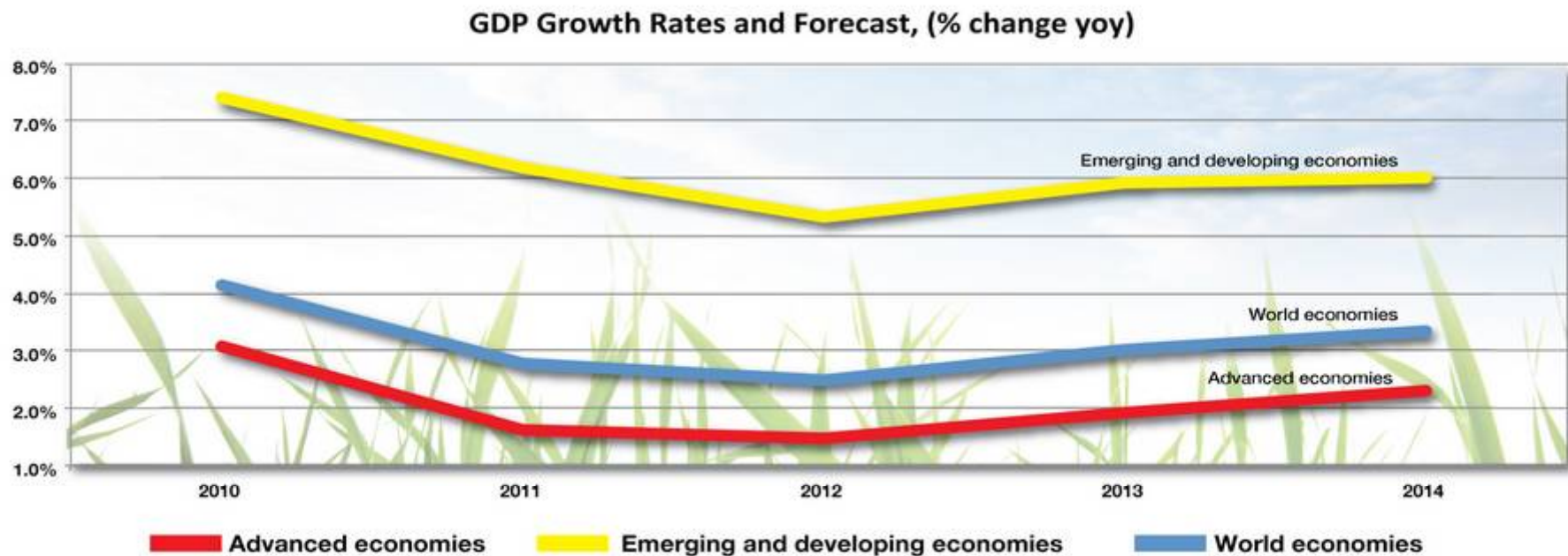
*Emerging and developing economies – strong growth*





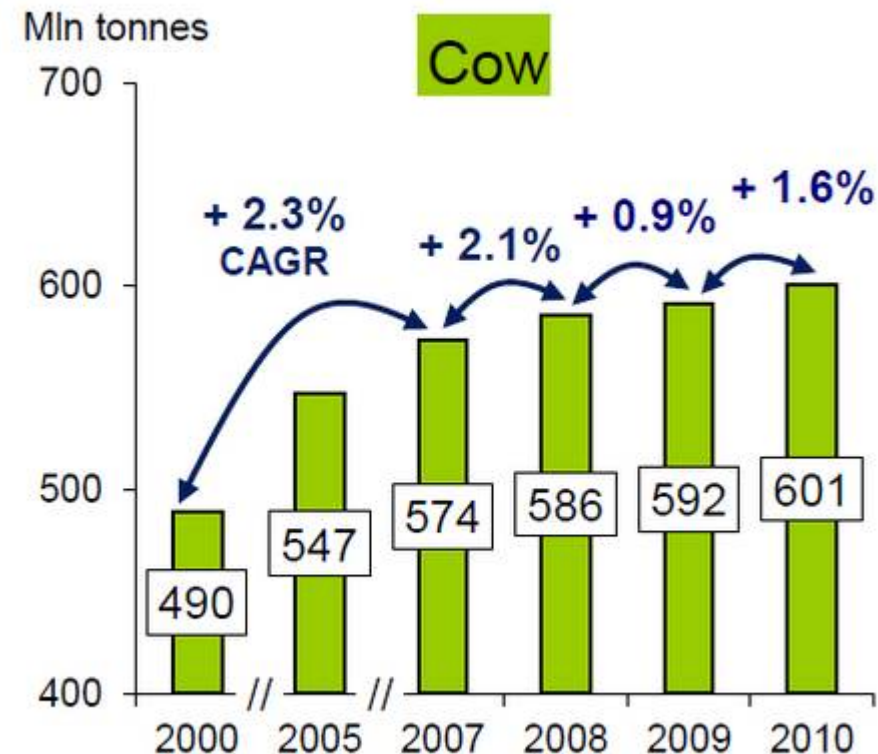
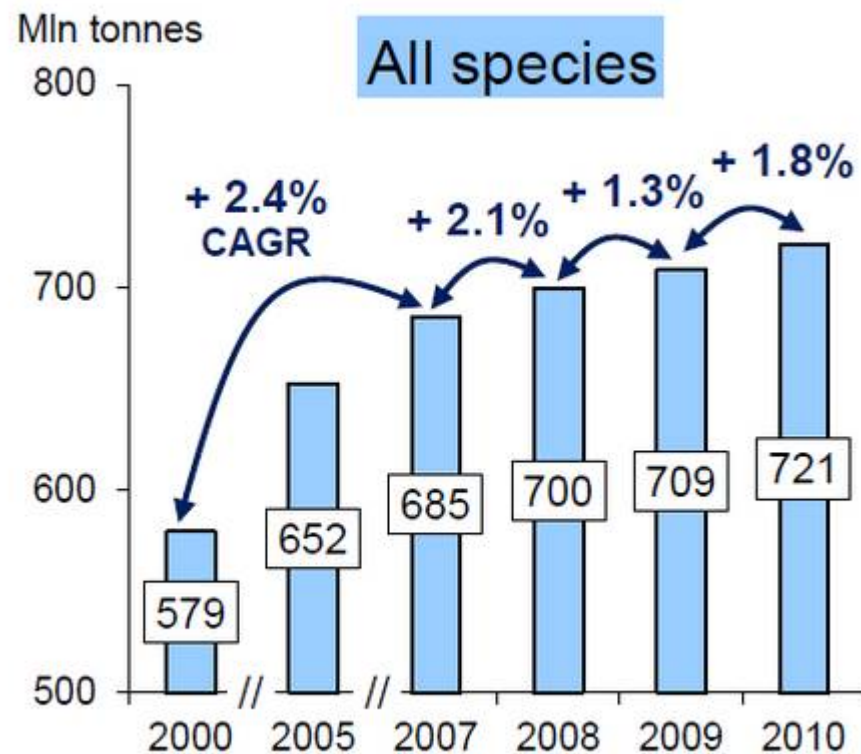
## Market Growth Drivers – Global GDP Growth

*Positive growth in world economies will lead to higher demand for food - major growth will be from emerging markets*





## World Milk Production is rising ...but at a slower rate than demand

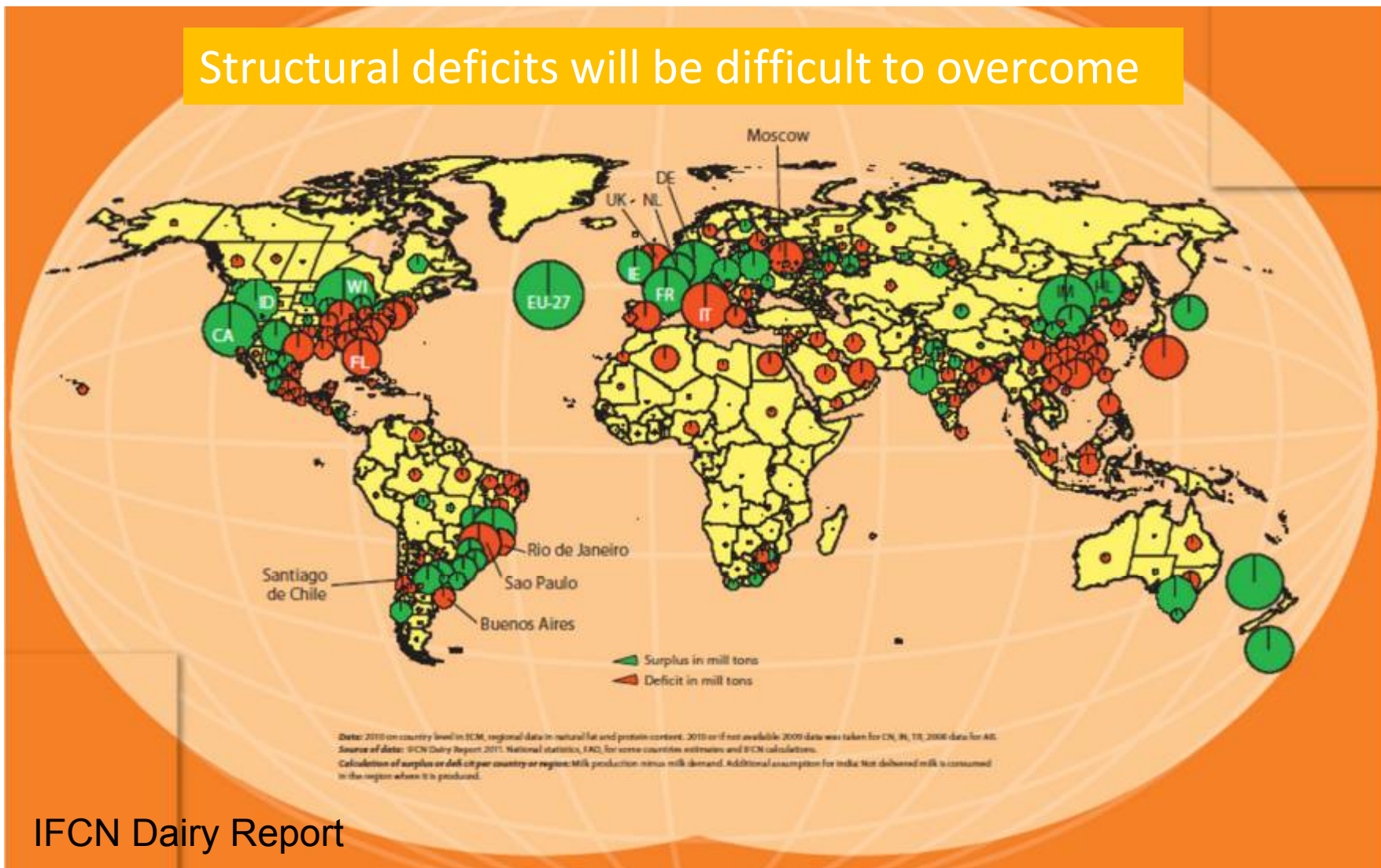




# Milk surplus and deficit regions

93% of global milk is produced locally

Structural deficits will be difficult to overcome



## Positive Demand Led Growth Outlook

*Future global dairy demand growth will be driven by developing markets*

	2009	2009	2010-11 (e)	2012-14 (f)	
Europe	125,415	0.0%	0.5%	0.6%	1%
NAFTA	104,844	0.5%	1.1%	1.7%	
Japan & Korea	12,007	-0.1%	0.3%	0.0%	
Australia / NZ	5,191	0.3%	1.3%	1.2%	
Russia	42,822	-3.2%	1.0%	2.2%	3.5%
Cen Am & Caribbean	11,185	1.8%	1.8%	1.8%	
South America	43,783	1.1%	2.8%	2.9%	
South East Asia	8,962	1.5%	4.6%	4.0%	
Indian	149,702	3.3%	3.2%	3.8%	
Middle East	22,336	3.6%	3.4%	3.2%	
Africa	34,646	3.9%	3.8%	4.0%	
China	32,449	-7.0%	5.0%	5.0%	
<b>World</b>	<b>608,054</b>	<b>0.7%</b>	<b>1.8%</b>	<b>2.5%</b>	

Source: Rabobank

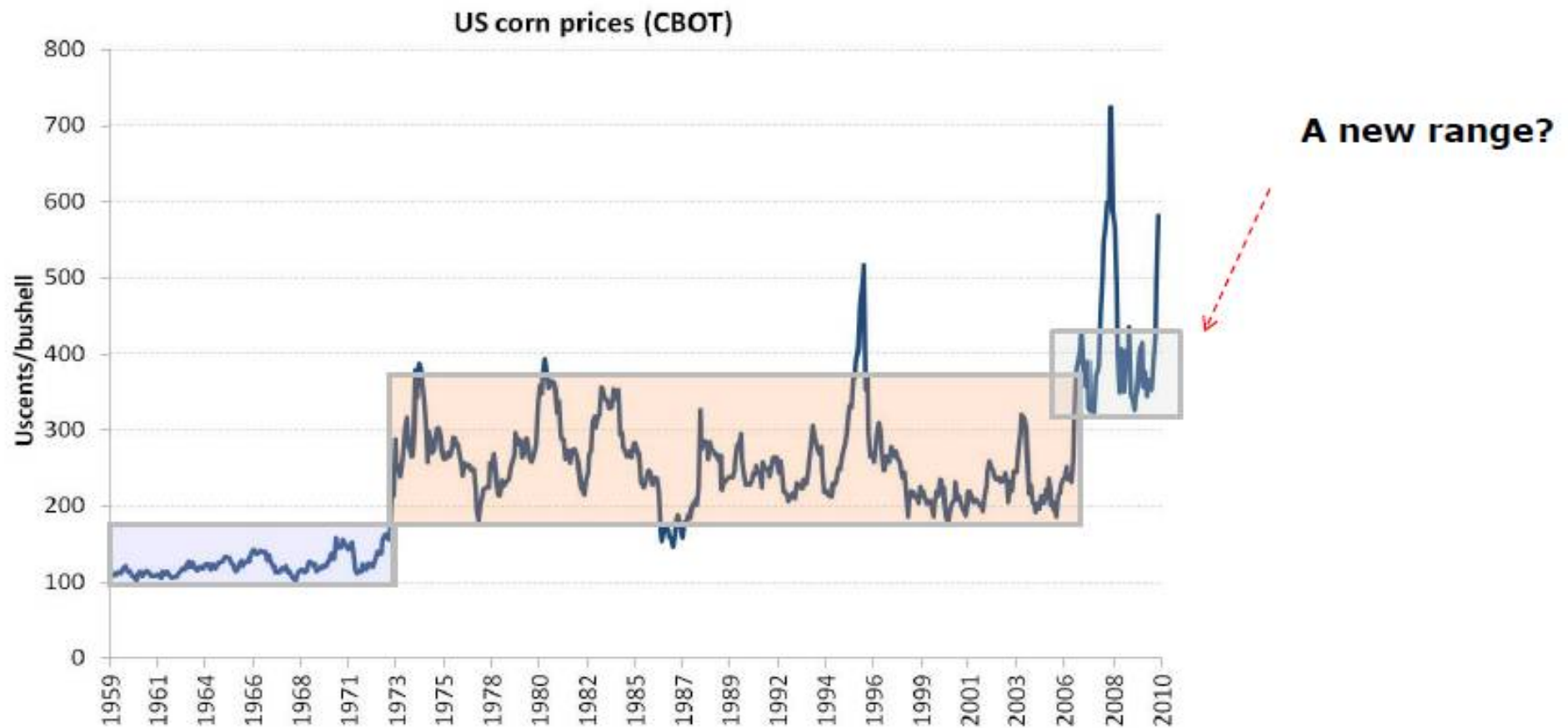
***Projections are for demand growth to out-pace supply growth for the foreseeable future***



# **VOLATILITY**



## Agricultural commodities moving to a new higher range but also ...greater volatility

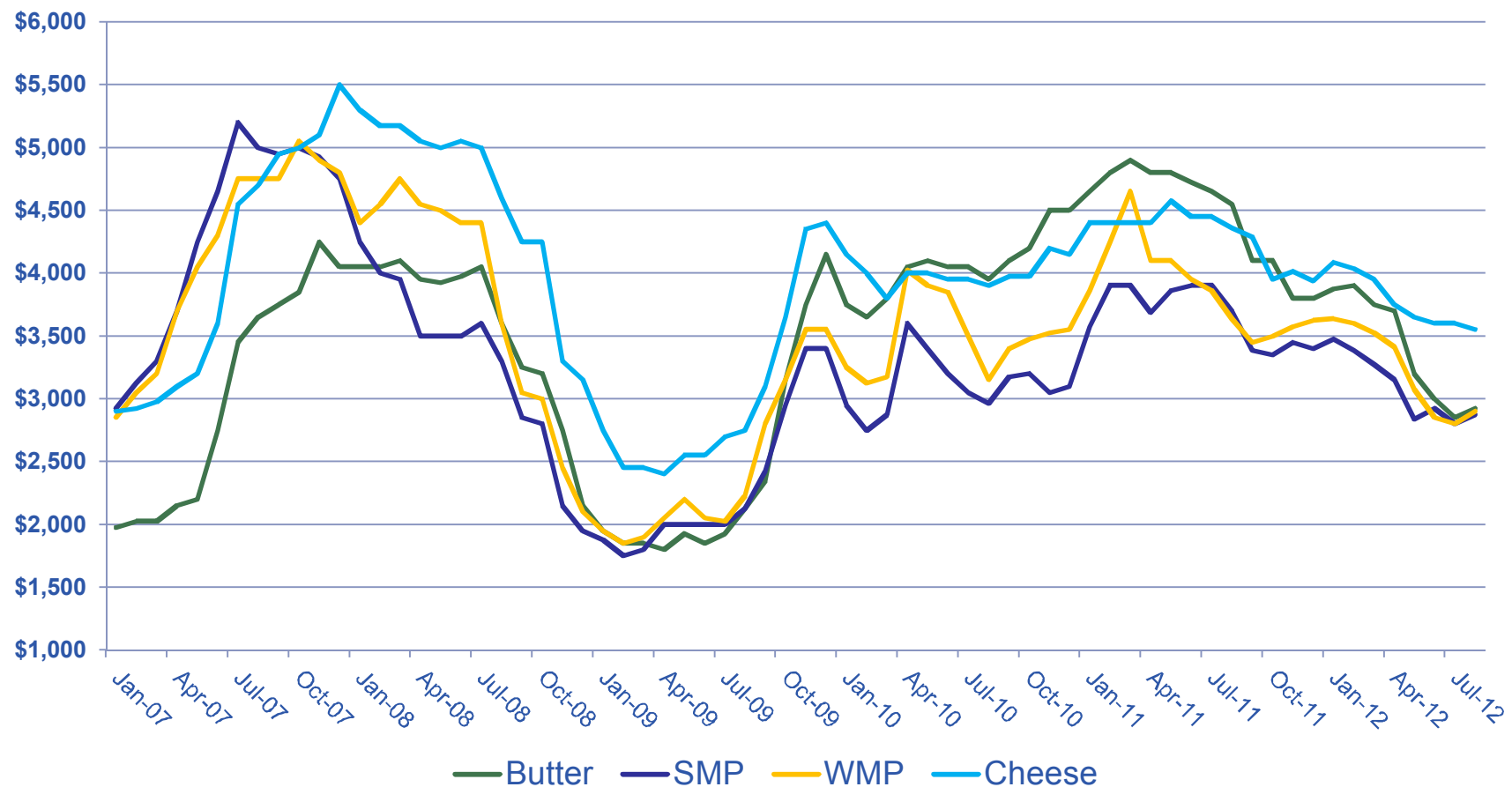


Source: Rabobank



## Price volatility creates uncertainty and risk for producers

International Dairy Product Prices: Jan. 2007 – August 2012

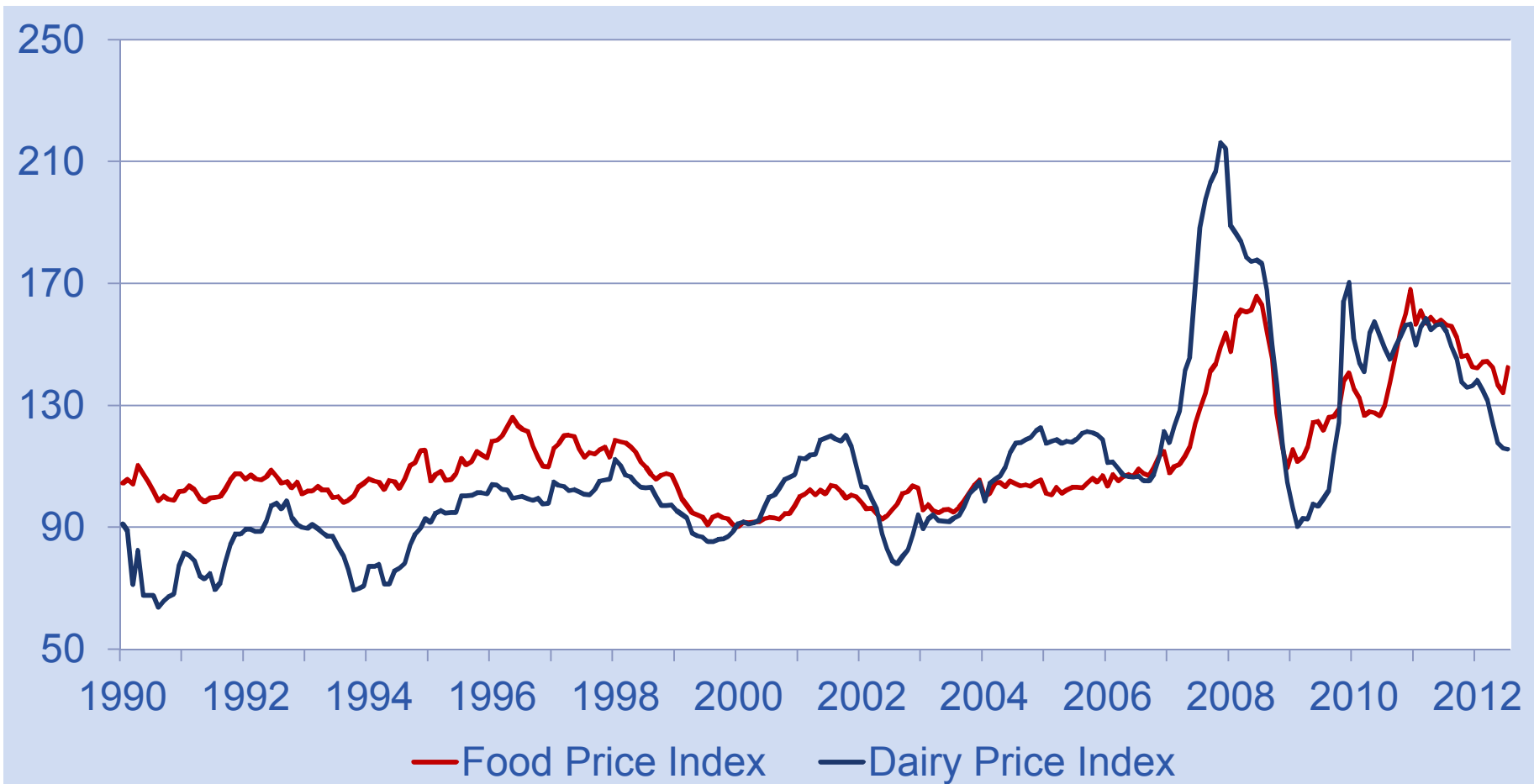


***Market volatility will remain and could grow further***

# Affordability is crucial to long term sustainability

## FAO Food and Dairy Price Indices

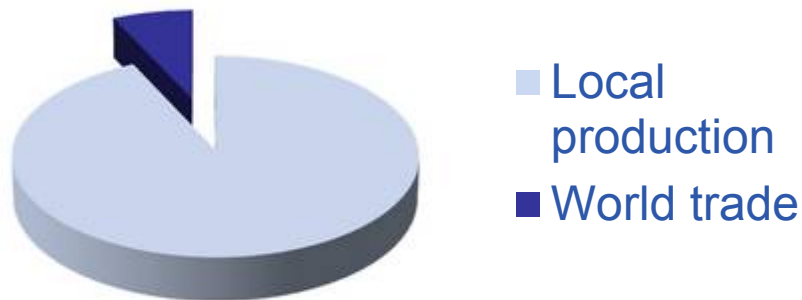
2002-2004 = 100





# Multiple challenges to dairy supply security

**Only 7% of global milk output is traded**



- Relatively thinly traded market
- Increased vulnerability to shocks and pressures
- Regional demand growth (but structural deficits will be difficult to overcome)
- Many countries will depend on international trade to ensure their food security
- Weather shocks are already a factor in security



## Unpredictable Weather Events

*The most frequent and significant factor causing volatility*



*Drought in NZ, China and India*



*Extreme heat and drought in Russia*



*Flooding in Australia and Pakistan*



*Flooding in Brazil and California*





# **WHAT SUSTAINABILITY MEANS**

# What is sustainability for Kerrygold consumer?



Grass based  
production

Climate  
Change

Sustainable  
expansion

Carbon  
footprint

Measurement

CO2  
emissions

Water  
footprint

Efficiencies

Natural

GMO

Commun-  
ication

Food  
Quality

Biodiversity

## Having a creditable sustainability message for consumer

- > Listening and responding to the consumer
  - Products with sustainable attributes
  - Grass based/Low emissions
  - Low inputs/Zero irrigation
  - Environmentally friendly/promotes biodiversity
  - High quality/naturally nutritious
- > As a major provider of quality food products, we take seriously our responsibility towards the environment
  - Facilitate our consumers to act in an environmentally sustainable manner
  - Help our customers to live their values
  - Committed to showing leadership to our suppliers





## Proving Ireland's sustainability credentials

- > Multifaceted approach
  - Need to place sustainability at the centre of our expansion plans
- > Must promote and protect our reputation
  - Adherence to good agriculture practices
  - Regulatory compliance
  - Licencing of processing facilities
- > Need to leverage our comparative advantage in sustainable production in the marketing of Irish dairy products abroad
- > Develop a culture where sustainability is ingrained in all facets of industry

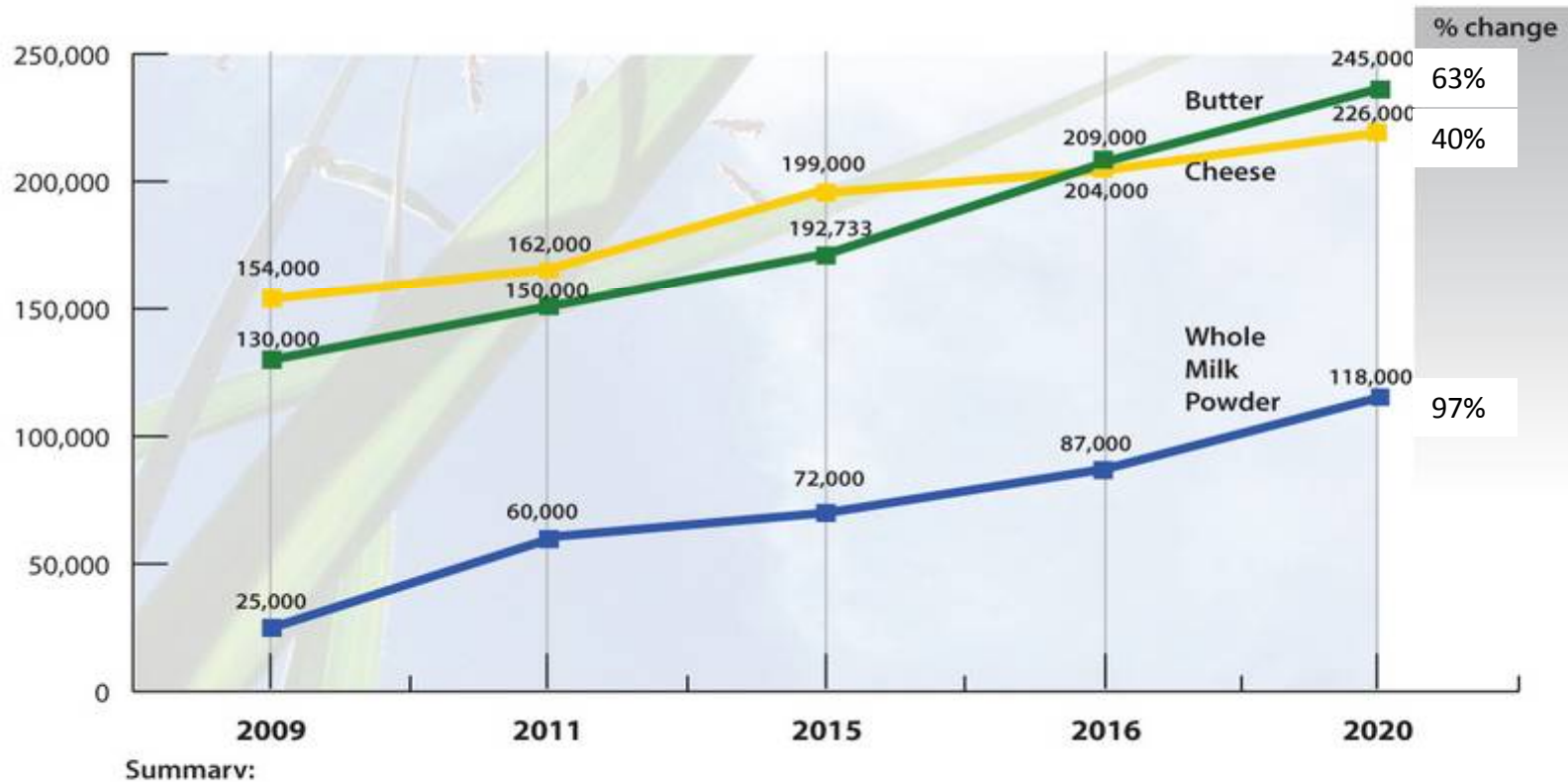


# **FOOD HARVEST 2020 DILEMMA**

# Ireland 50% Growth Projection to 2020

## Product Output Scenario

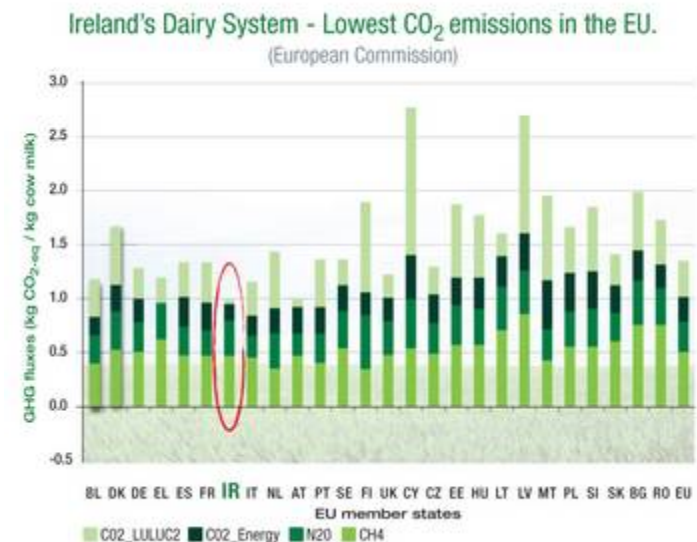
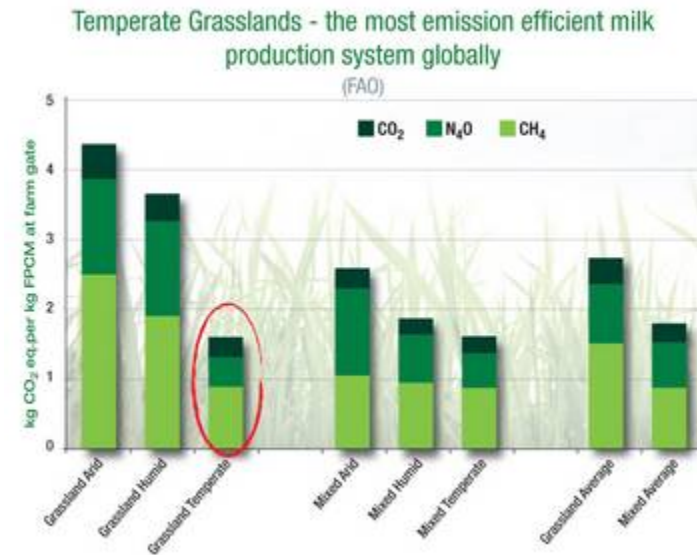
*Can Ireland maximise its potential while adapting to Climate change?*





## The FH2020 dilemma

- > Ireland's temperate grassland production system is ideally suited to milk production
- > Also lowest CO<sub>2</sub> emissions in the EU
- > Expansion will drive up total emissions from dairy but on a unit basis will make us even more efficient
- > Getting recognition for this is our collective policy challenge







# CONCLUSION





## Multiple challenges for food security

- > “By 2025 will need significantly **more** food production on **less** land with **less** water, using **less** energy fertiliser and pesticides ..... whilst **not increasing** greenhouse gas emissions”

Sir John Beddington  
UK Government  
Chief Scientific Advisor



## Bringing sustainability to the fore

- > Changes are required throughout the food system to address food security
  - More food must be produced sustainably
  - Resource intensive foods must be contained
  - Waste must be eliminated
  - Volatility will need to be managed
  - Political and economic governance of food system has to improve
  
- > Reducing GHG emissions and adapting to a changing climate will become imperative



## **With challenges come opportunities**

- > The demand outlook for global dairying is positive
- > Ireland can help meet growing food demand from emerging economies
- > Sustainability must be integral to our expansion plans
  - Minimising carbon emissions
  - Leveraging Ireland's green image, rain produced grass, high quality products



**THANK YOU**