



What are the Prospects for Profitable and Sustainable Dairy Farming in Northern Ireland?

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25 January 2011*

New Zealand Milk Production

December '10 **V** December '09

-6.5%

Why is this important to N.I.

dairy farmers and the milk price

they receive?

What do we mean by “profitable” and “sustainable”?

Profitable = bring gain, advantageous,
lucrative, earning money

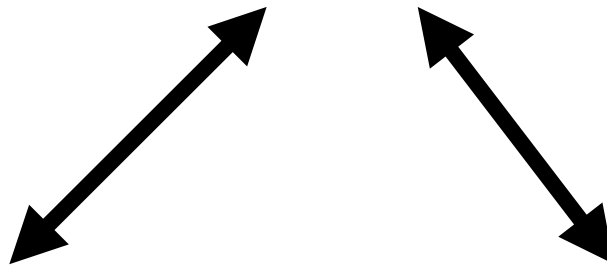
Sustainable = the capacity to endure!!
= a resource or system that meets
present needs without
compromising those of
future generations ✓ ✓

Dairy Farming Profitability

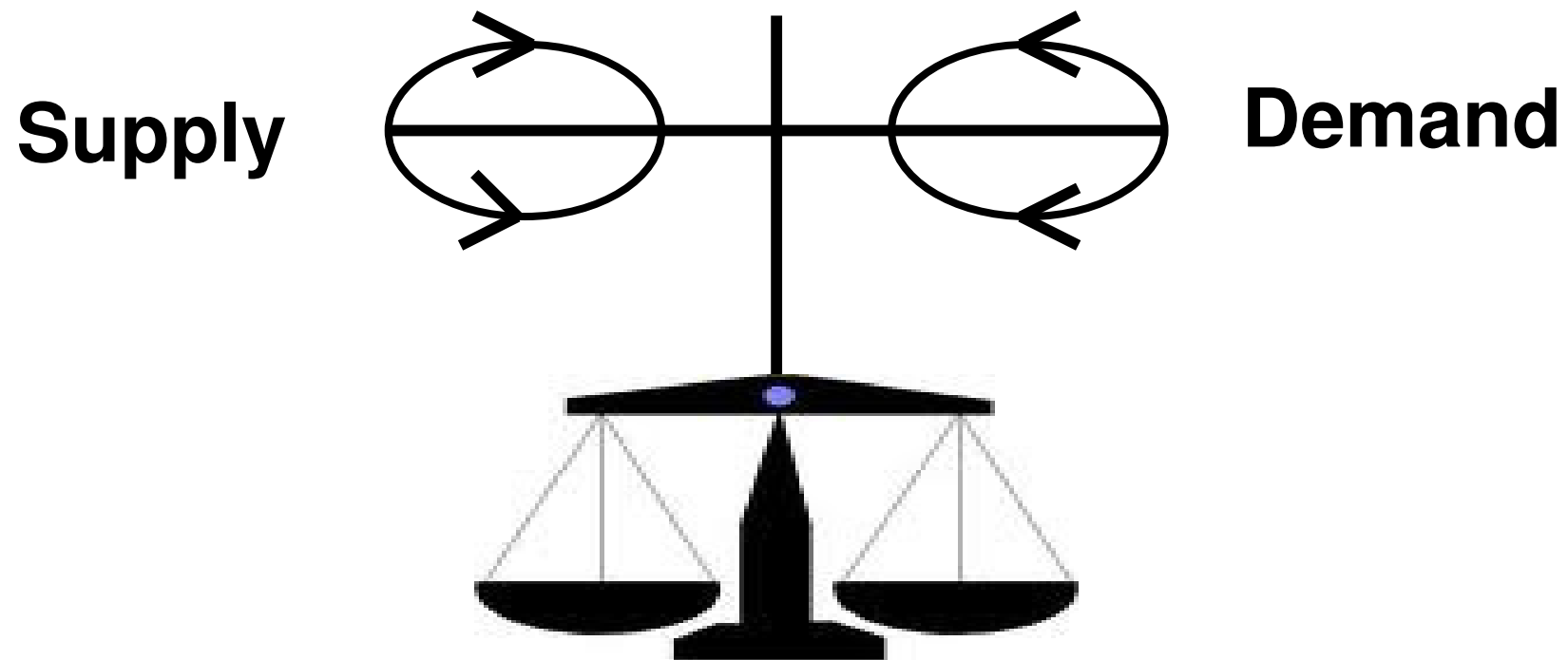
$$\text{Profit} = \text{Margin} \times \text{Volume}$$

**Milk Output
(price)**

Production Costs



Northern Ireland Milk Price



Profitability and Sustainability of N.I. Dairy Farming EU Support Priorities

- building a strong CAP is a key objective for EU.
- EU Policy supported by EU tax payer.
- agriculture key to overall EU economic growth.
- AXIS 1 viewed as an “income support”.
- EU policy must ensure food security.
- agriculture must deliver public good (climate change / biodiversity).

Factors Influencing Demand

Population Growth

Consumption of Dairy Products

Economic Stability and Growth

Food Security

Consumer Confidence

Health Benefits of a Balanced Diet

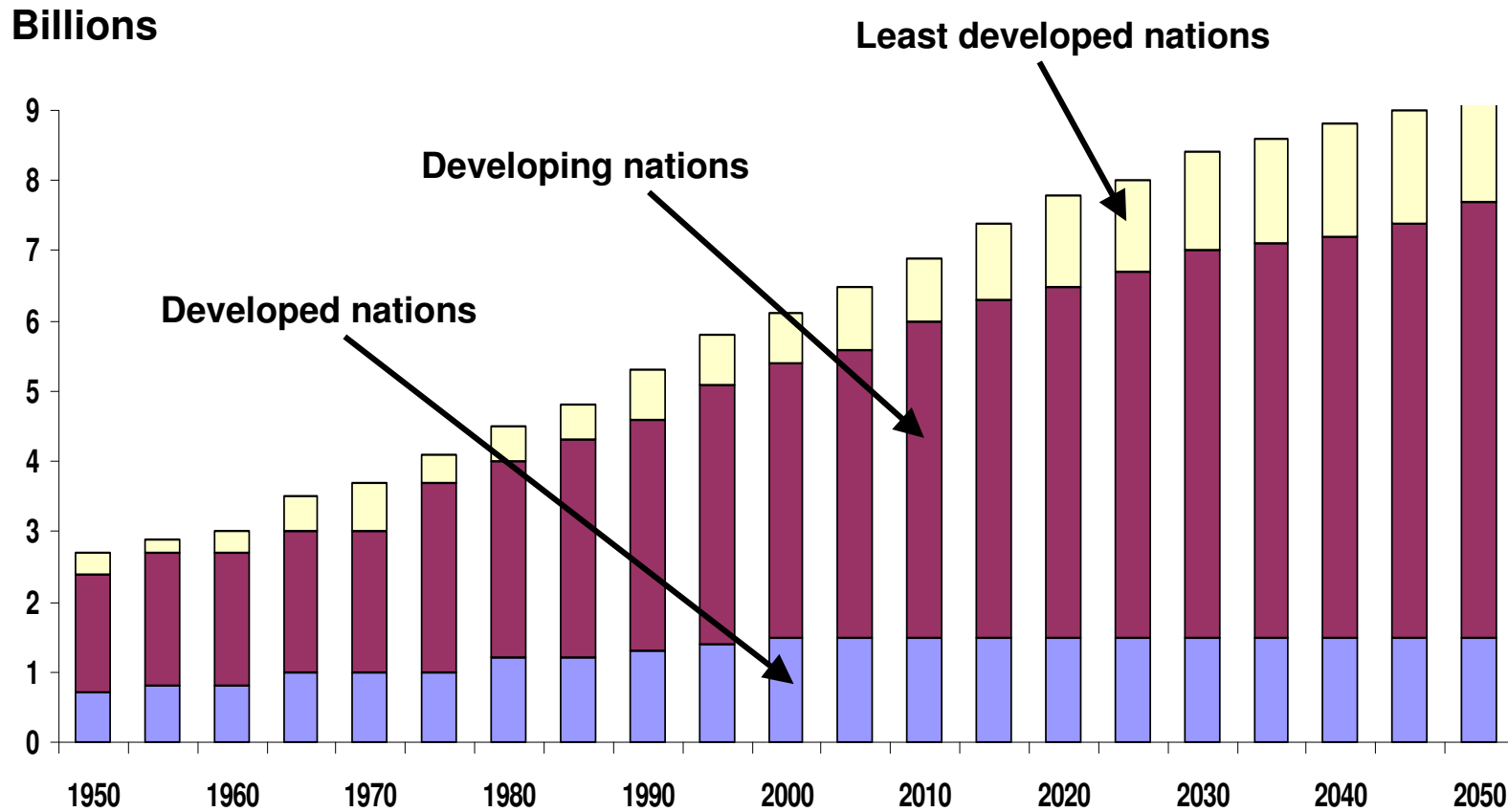
Functionality of Milk

Factors Influencing Demand

Population Growth

- ❖ World population increasing annually by 90 million.
- ❖ By 2050 world population between 9-10 billion.
- ❖ Currently over 1 billion people hungry.
- ❖ Over the next 20 years food demand will increase by 50%.

Where is population growth occurring?



Factors Influencing Demand

Consumption

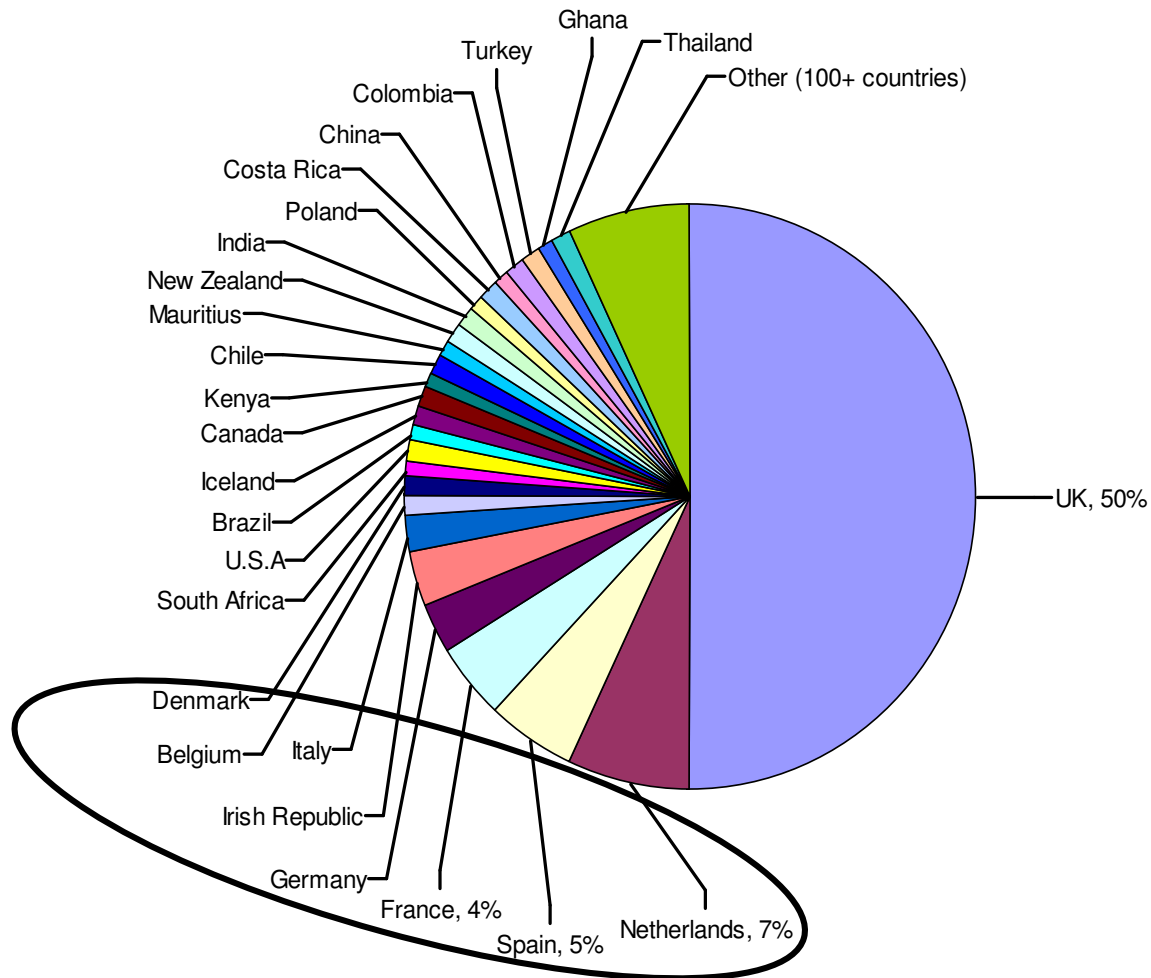
Country	Population (million)	Milk (l)	Cheese (kg)
China	1,335	12	-
India	1,170	40	-
EU	499	65	16.6
USA	307	85	14.8
Russia	142	75	5.6
Brazil	193	60	3.2
Australia	22.2	110	12
New Zealand	4.3	80	6
(Ireland	4.5	150	6)

Food Security

UK complacency shaken in 2000s

- Lorry strike 2000: '5 days from shortages'
 - Food resilience reviews: MoD / Defra / Cranfield / Chatham House
- Food price rises threaten cost of living index
- *Food Matters* (HMT → PMSU):
 - Defra creates FPU → Fd Sec indicators
 - New inside Whitehall: Cabinet DA(F), CFPA
 - D.A.s start producing more pro-food production policies
- Meanwhile self-sufficiency falls:
 - down to 58.9% in 2009 (March 2010)

Origins of food consumed in the UK by value: 2007



**Where
does UK
food
come
from?**

**source: Defra Food
Security**

Based on the farm-gate value of unprocessed food

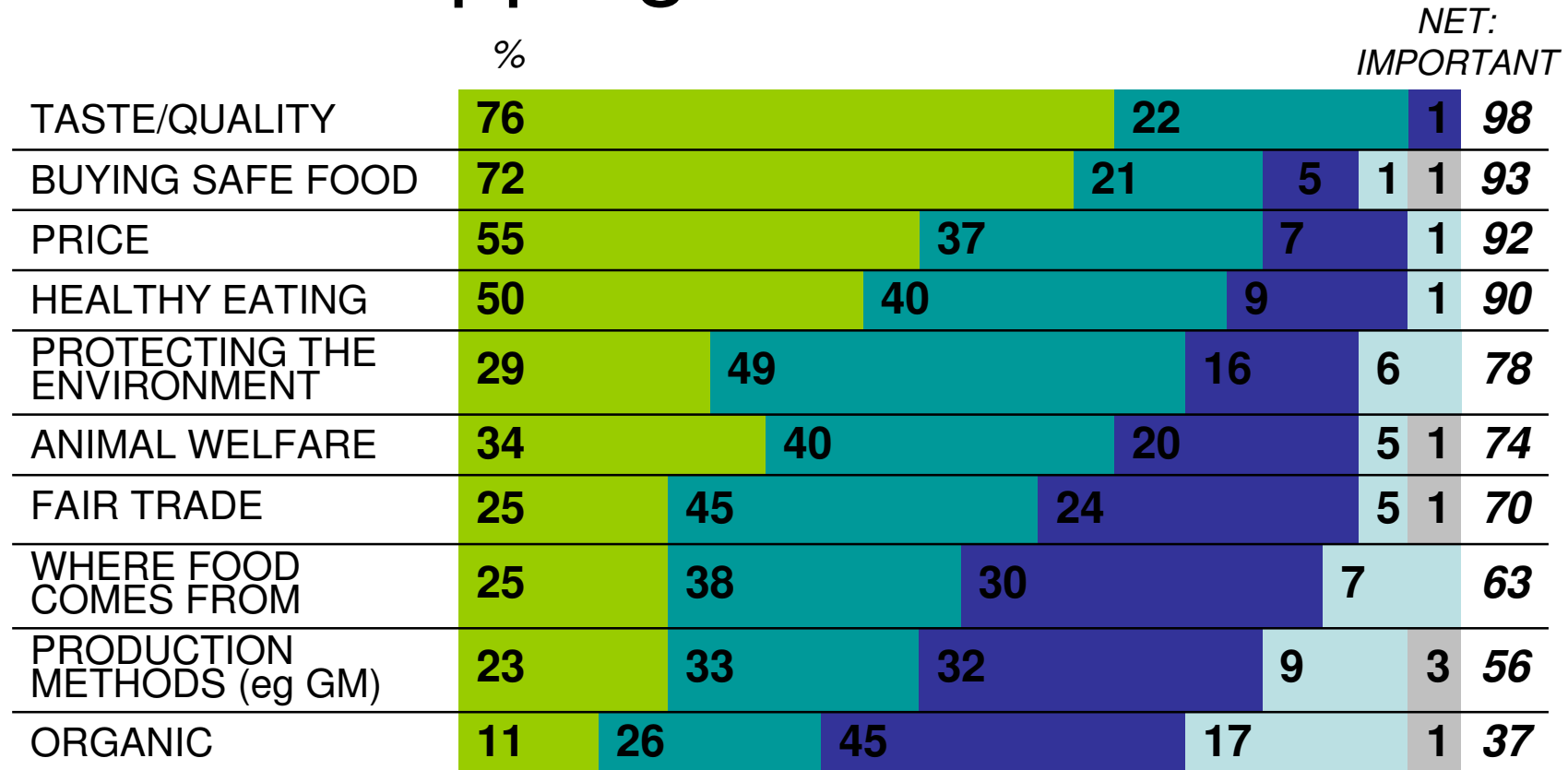
Factors Influencing Demand

Consumer Confidence

Lessons from the past on how to loose it!

- lack to transparency
- food production practices out of line with public expectation
- poor communication with the consumer
- lack of independent scrutiny
- insufficient precautions / safeguards
- prioritise short-term economics over long term public health
- neglect the social and ethical dimensions to food choice
- need to protect children's health.

Importance of different factors when shopping for food



■ VERY IMPORTANT
 ■ FAIRLY IMPORTANT
 ■ NOT VERY IMPORTANT
■ NOT AT ALL IMPORTANT
 ■ DON'T KNOW

When shopping for food, how important would you say the following issues are to you when choosing what to buy (Base all shopping for groceries at least once a month n = 854)

Factors Influencing Demand

Health Benefits of Milk in a Balanced Diet

- ❖ bone health – osteoporosis
- ❖ dental health
- ❖ reduced incidence of cancer – colon / breast
- ❖ childhood obesity – calcium rich foods (milk)
reduce body fat
- ❖ help athletes refuel – twice as effective as
sports drinks.

In Essence – An Advertising Agency Dream!



College of Agriculture,
Food & Rural Enterprise

Factors Influencing Supply

World dairy cow population

Dairy cow production levels

Costs of production - OIL

Land availability

Water

Weather patterns

Climate Change

Green House Gas (G.H.G.) Quotas

Currency / Competitiveness

Factors Influencing Supply

World Milk Production

Country	Cow Nos (‘000)	Av. yield (l)	% World Production	% Change Production 2000-09
China	12,600	2,790	6	71
India	38,500	1,200	8	41
EU*	23,800	6,200	25.2	1
USA	9,201	9,350	14.6	13
Russia	9,000	3,600	5.5	2
Brazil	21,800	1,280	4.8	24
Australia	1,650	5,650	1.6	-14
New Zealand	4,600	3,700	2.9	2.7
* EU15				
UK	1,857	7,350	2.3	-6
Ireland	1,107	4,950	0.9	-4

Factors Influencing Supply

Costs of milk production

OIL

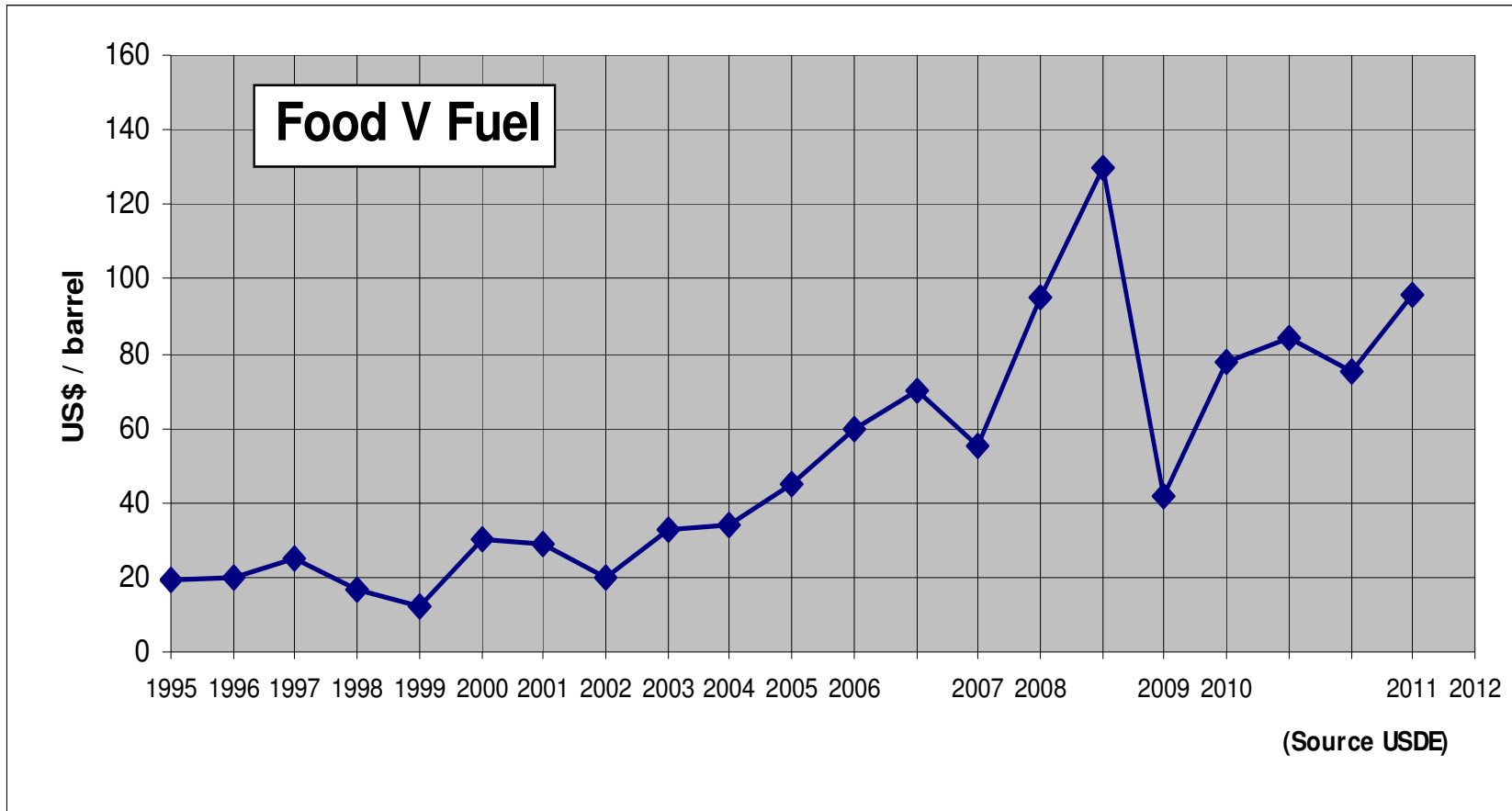
Direct

- Fertilizer
- Energy
- Transportation

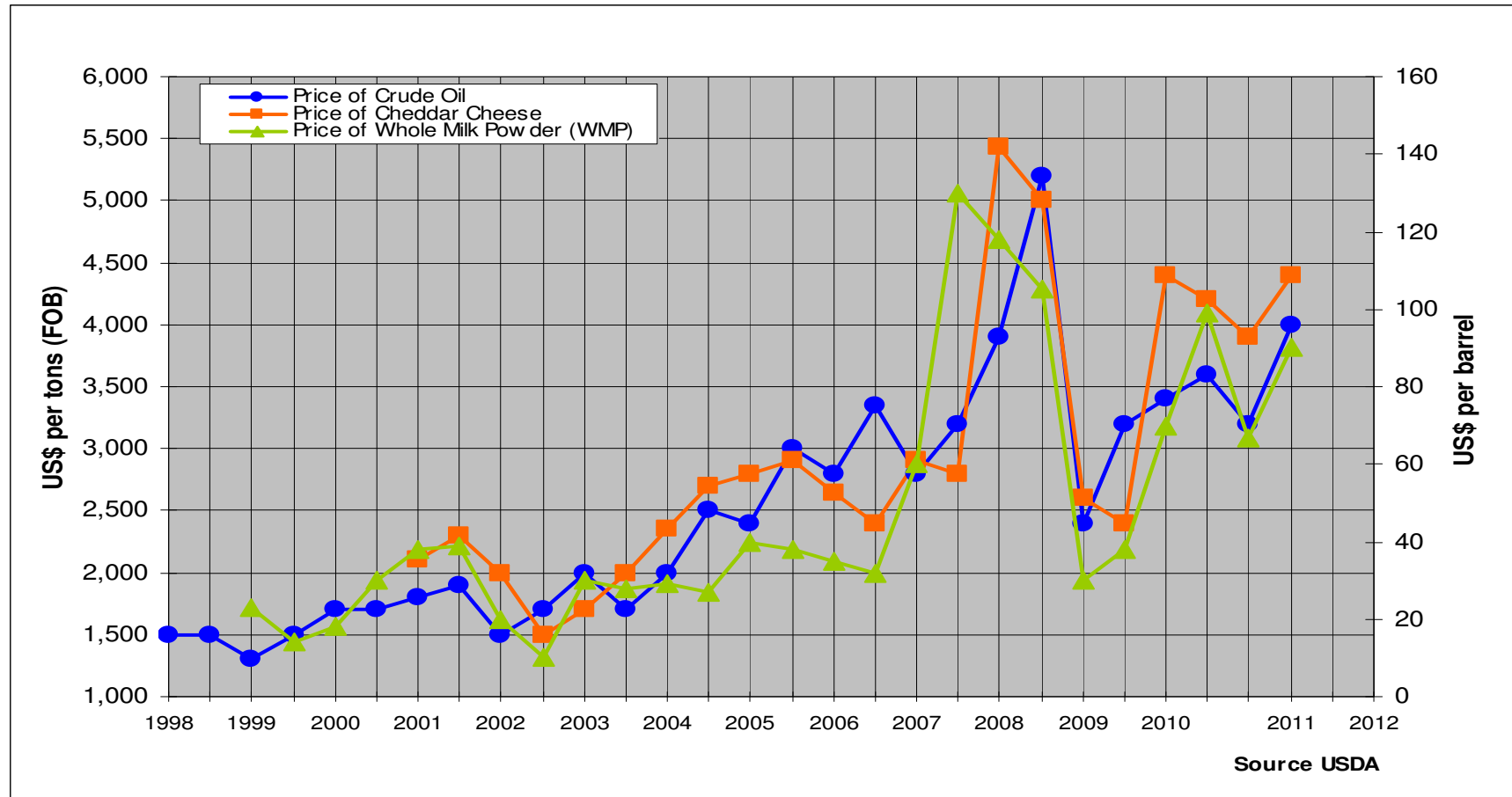
Indirect

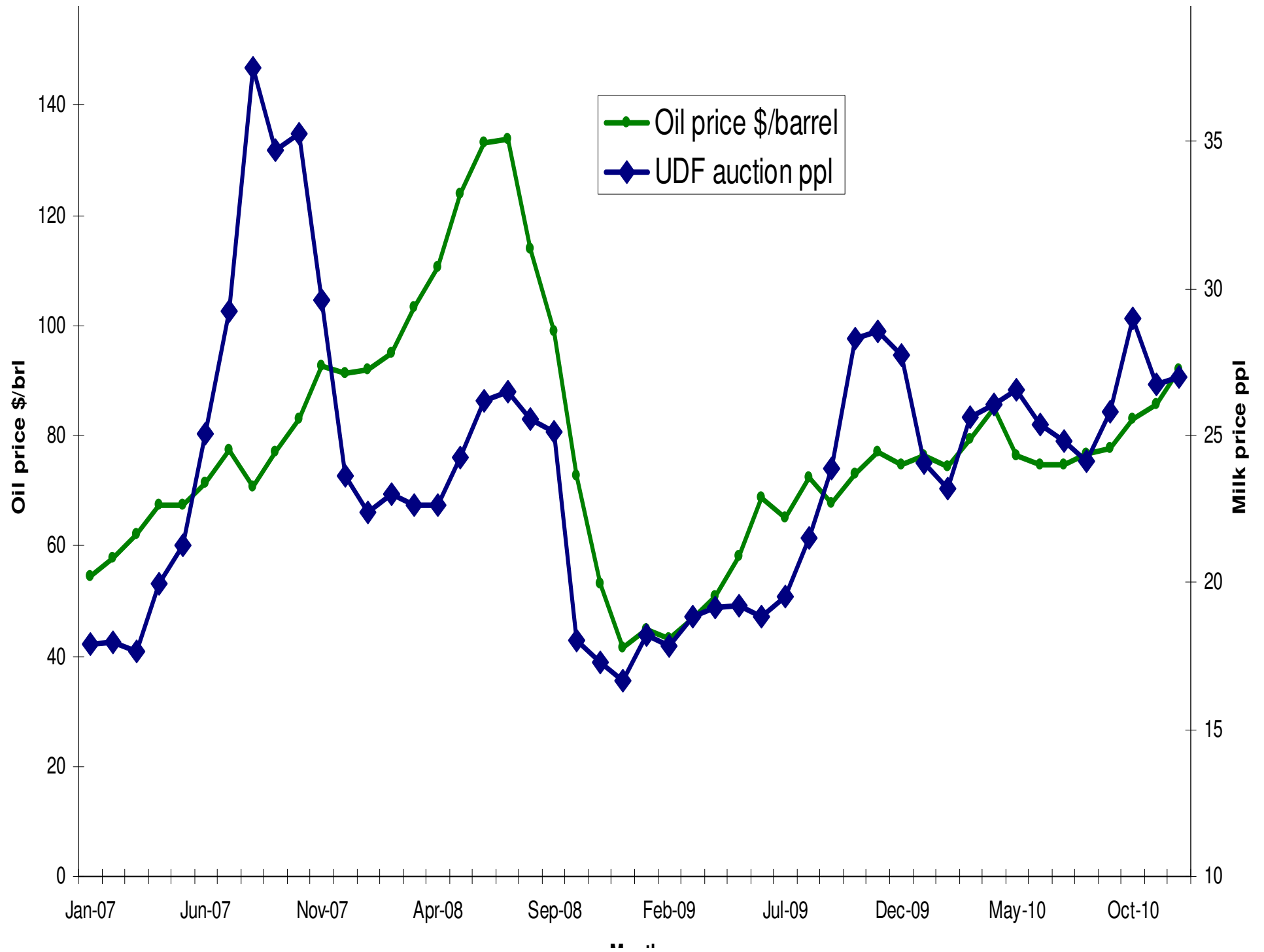
- Biofuels
- Government policies
- Food Security

Brent Crude Oil Price

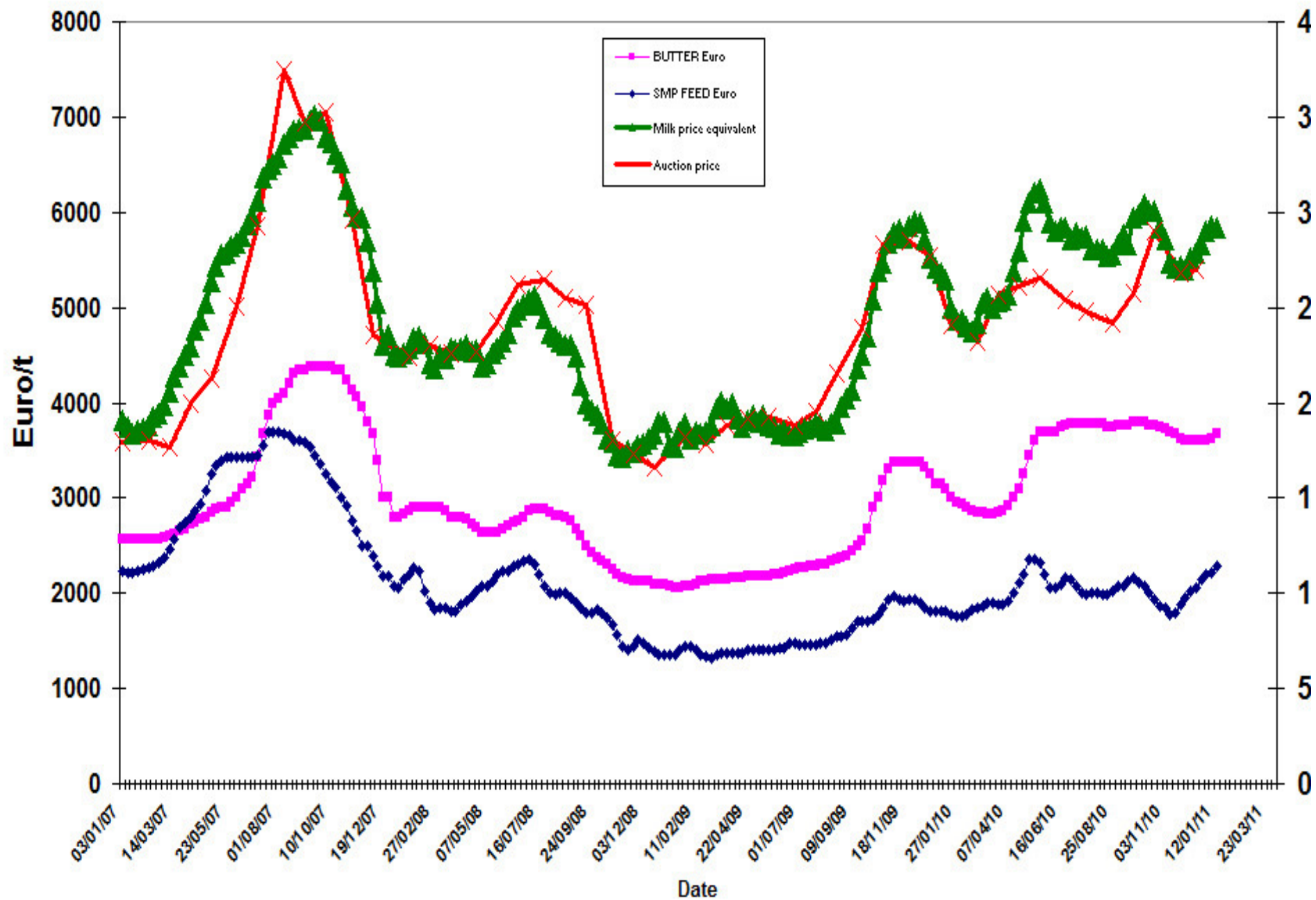


Comparative historical overview of the prices of Crude Oil and some dairy products

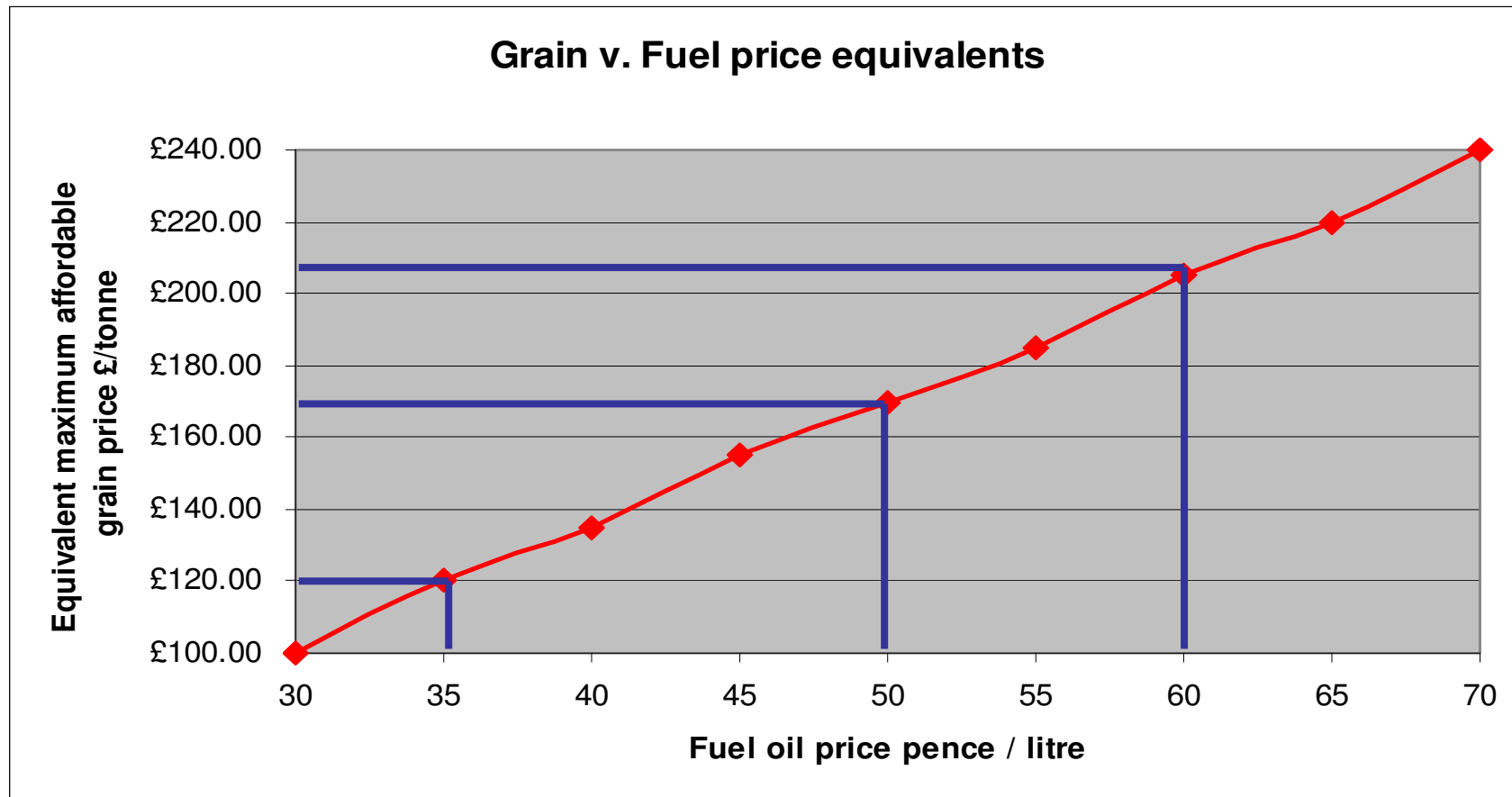




milk price ppl



Biomass At 15% moisture equivalent to burning oil



Biofuels / Food Security

USDA – 2008 World grain consumption increased by 20 million tonnes, approximately 1%. Of this increase 14 million tonnes was used to fuel cars in the U.S. leaving only 6 million tonnes to cover increasing world food demand.

Wheat needed to fill an American SUV once could feed one person for one year!!

Key Challenges in Agriculture

If this was the Earth 509 mio km²...

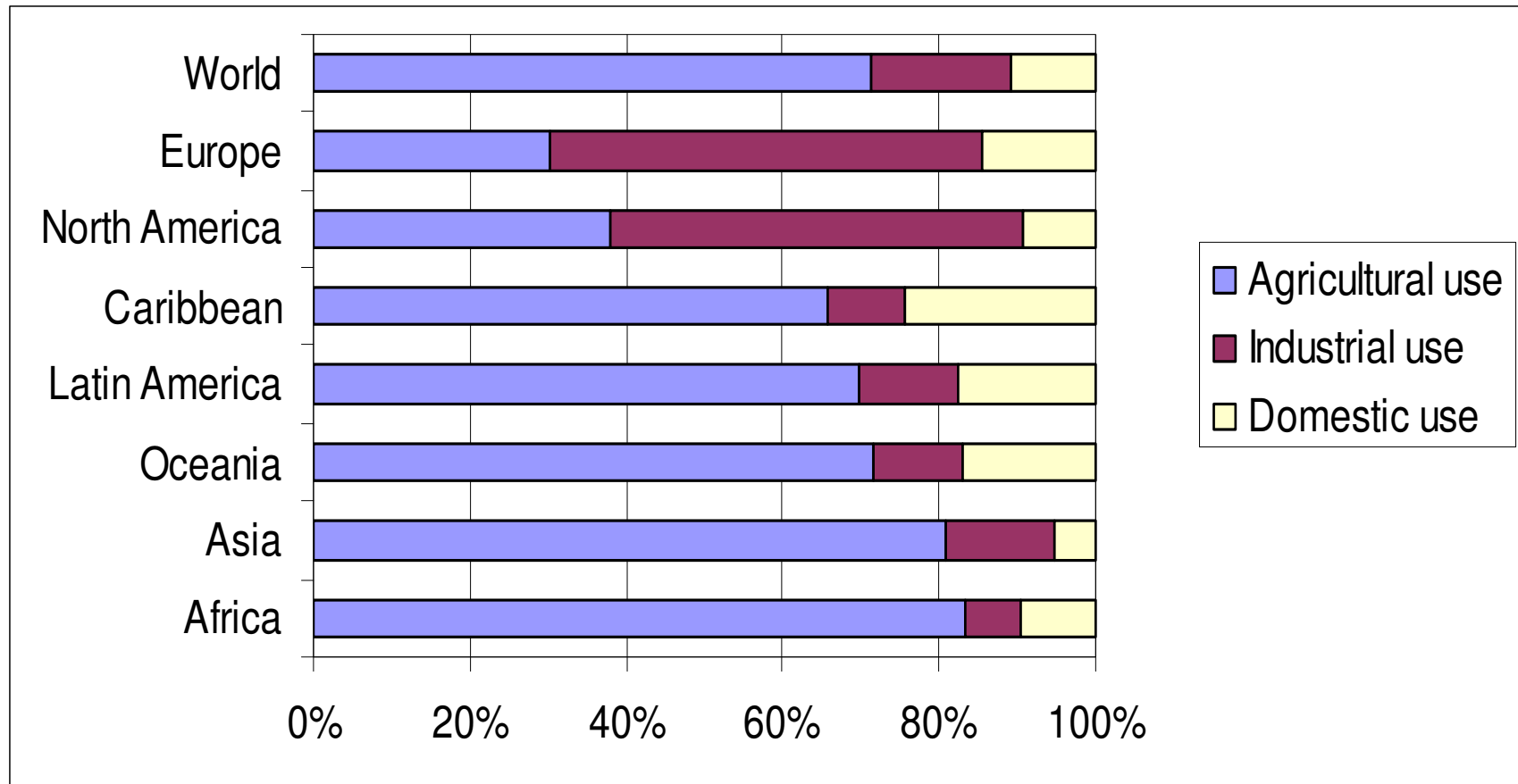


... this would be the land available for agriculture 15 mio km²/~3%

Food Supply: A Global Challenge

	World Population (billion)	Arable Land & permanent Crops (billion hectares)	Farmland per Person (hectares)
1950	2.5	1.3	0.5
1975	4.0	1.4	0.4
2000	6.0	1.5	0.3
2020	7.5	1.5	0.2

Water use



Source: FAO

Water...a new quota?

- If there is no change in Global water demand....
- By 2025, water scarcity will cause annual global losses of 350 mtons of food production-slightly more than the entire current U.S. grain crop.
- Developing countries will dramatically increase their reliance on food imports. In sub-Saharan Africa, grain imports will more than triple.



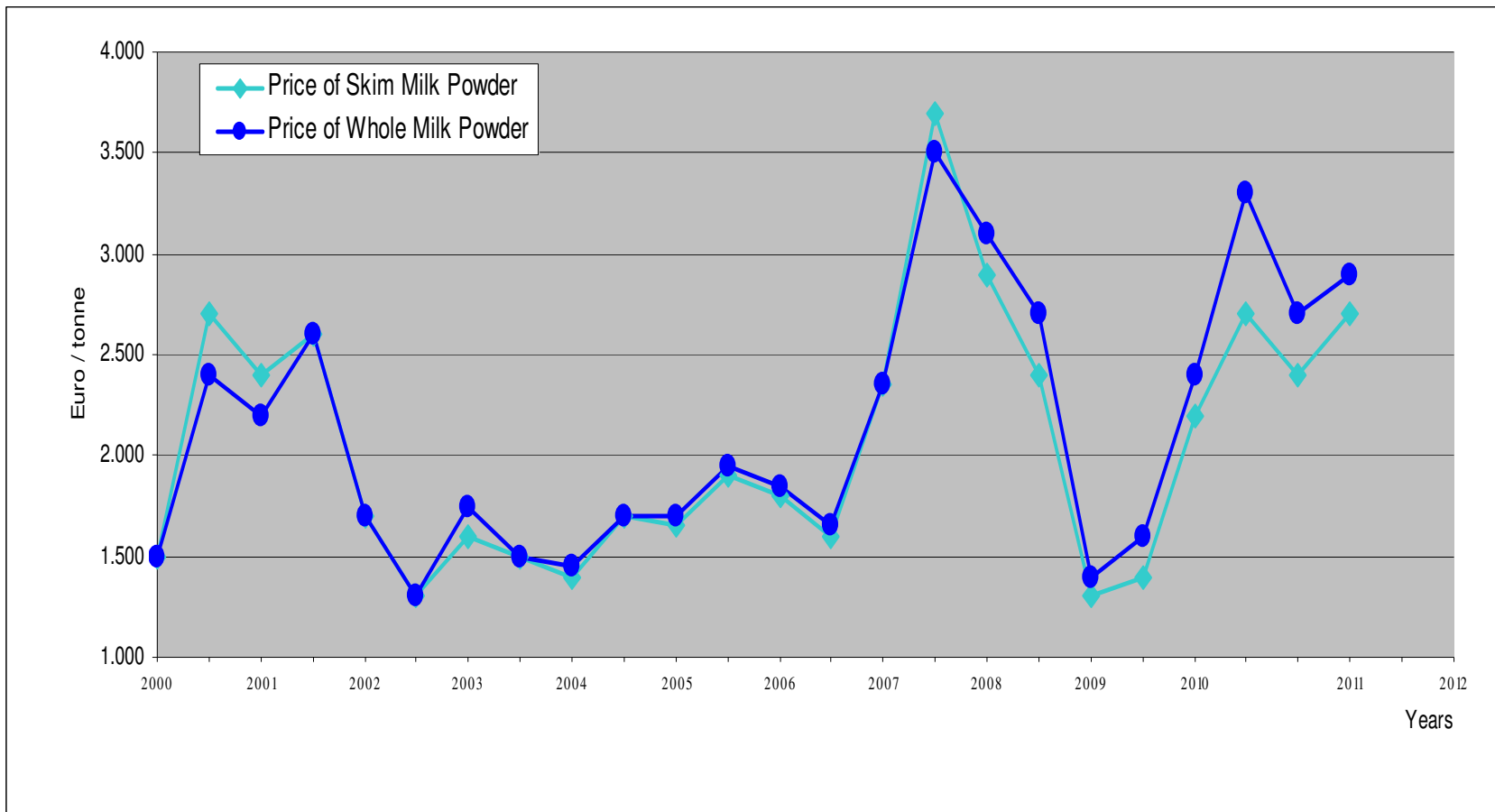
World Milk Market Supply / Demand Balance

- * balance tipped in favour of demand
- * only 7% of world milk production available for trading
 - who trades in the world milk market?

Leading Exporters on the Global Dairy Market 2009

	W.M.P.	S.M.P.	Butter / Butter Oil
New Zealand	37	30	49
Australia	6	13	9
EU 27	22	17	16
Argentina	7	-	2
USA	-	19	-
Rest of World	28	21	21

SMP and WMP prices 2,000 - date



Milk Price Volatility

Comparative Milk Prices – euro c/kg

Year	EU	New Zealand	USA
2000	30.7	16.6	26.4
2001	32.6	18.4	36.7
2002	31.2	15.8	27.5
2003	29.9	15.6	24.8
2004	29.4	18.1	31.1
2005	28.7	18.3	28.0
2006	28.3	17.0	23.5
2007	32.3	26.3	32.1
2008	34.6	22.8	29.4
2009	26.9	20.8	20.2
*2010	30.1	27.3	27.3

* estimate

Milk Price Volatility will be a Reality

How does industry minimize the impact?

- margin insurance
- futures market
- growth management (Dairy Farmers of America)
- contracts (Tesco)
- collaboration (EU proposal)
- move from commodity to brand market (£ investment).

Milk Price Volatility will be a Reality

How do YOU minimize the impact?

- technical and production efficiency
- business focus
- save for a “rainy day”
- co-operation
- integrated supply chain

Points for Consideration by N.I. the Dairy Industry

- ❖ demand for milk and milk products good.
- ❖ milk price volatility is and will be a fact of the market.
- ❖ milk price prospects good.
- ❖ input costs will remain high or further increase.
- ❖ debt levels – do not adopt a Dutch or Danish approach.
- ❖ the top 50% of N.I. dairy farmers have a profitable and sustainable future.
- ❖ quality forage has an essential role to play in maintaining N.I. competitiveness.

Points for Consideration by N.I. the Dairy Industry continued....

- ❖ N.I. milk price dictated by, one auction, spot market once per month.
- ❖ auction driven by commodity prices.
- ❖ increased milk production in ROI.
- ❖ milk supply chain integration.
- ❖ “end-use” milk pricing.
- ❖ milk price formula.
- ❖ contracts.