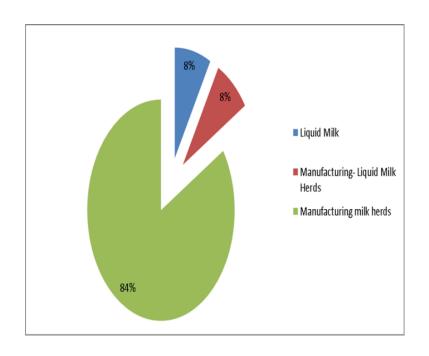
Overview of liquid milk production system economics

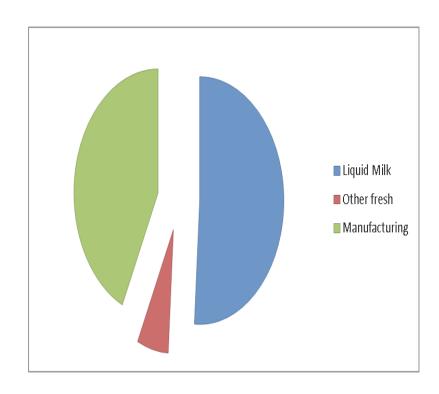
Joe Patton, Teagasc

IFA Liquid Milk Event, October 8th 2015



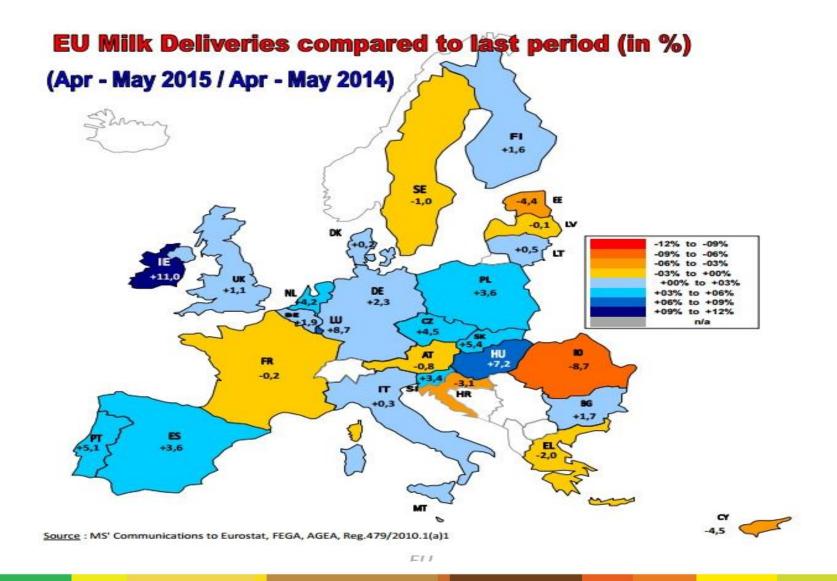
Background and context





ROI UK







Why we need resilient dairy systems...

GlobalDairyTrade Price Index over 10 years

The GDT Price Index is calculated from the total quantity sold in a trading event across all products, contract periods and sellers. For more information on the price index calculation, please go to our Resources page.





The milk seasonality debate...

'I can assure any farmer here that if he sends his milk to the city for those five months of the year and places his contract at 40 gallons a day he will have roughly about £100 profit at the end of the five summer months. However, let him stop there and sit down and live on the £100 for the next seven months because if he sends milk to the city at the rate of 40 gallons a day for the 12 months of the year he will find himself at the end of the 12 months at a dead loss of £13'

(Corry, FF Cork)

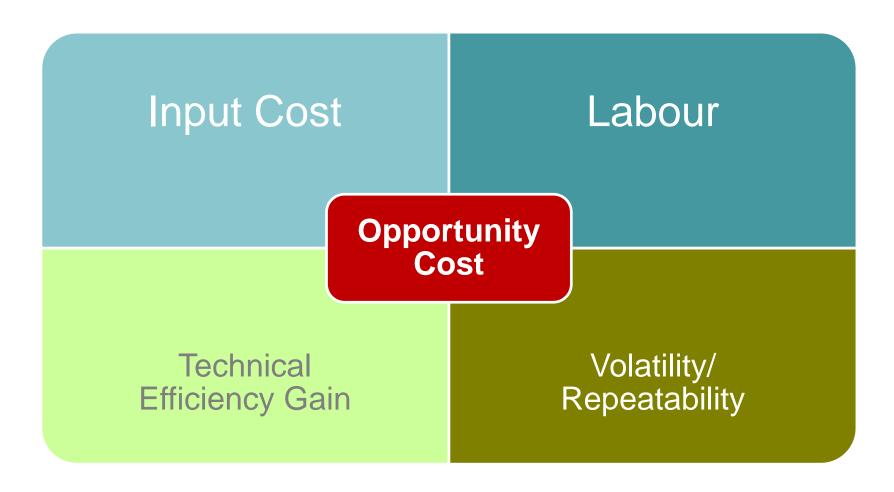
'The prices are fixed in respect of the Dublin milk supply area and the Cork milk supply area at a different level for different months.... In varying the price from month to month, the aim is to bring the winter price rather higher, so that the man who goes to the trouble of maintaining a constant supply all through the year will receive a higher proportion of reward for his effort than the man who comes into Cork with grass-produced milk and never presents himself during the winter months when the production of milk is comparatively difficult.'

(Dillon, IND, Monaghan)

Dail Debate May 1948



Economic Challenges for Liquid Milk: Key Elements

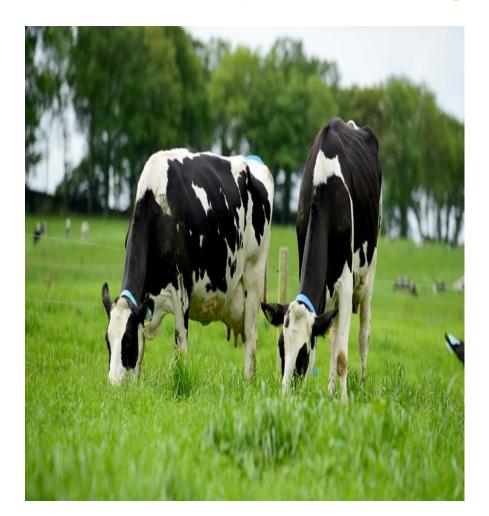


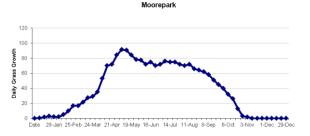


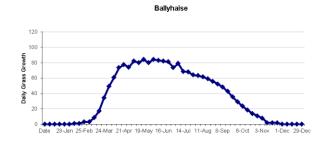


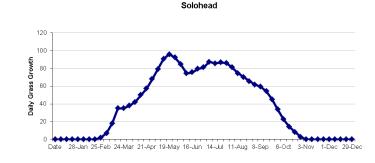


Ireland's Competitive Advantage.....











Relative Cost of Feeds





- High feed energy and protein value
- Variable & seasonal supply
- Low fixed and variable costs (€75 per t)



Grass Silage

2.0

- Lower feed value than grazed grass
- Quality v Quantity
- Higher fixed and variable cost (€130-€150/t)

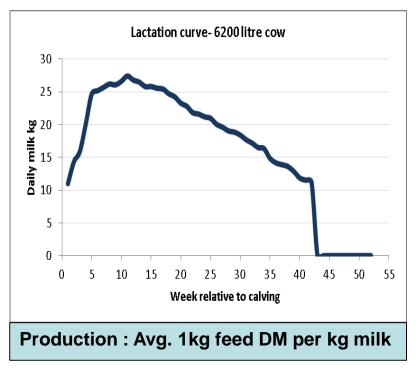


Concentrates (cereal, proteins, co-products)

- High feed value
- Dry storage and available year-round
- Limited max feeding rate
- High and volatile cost (€250 €300/t)



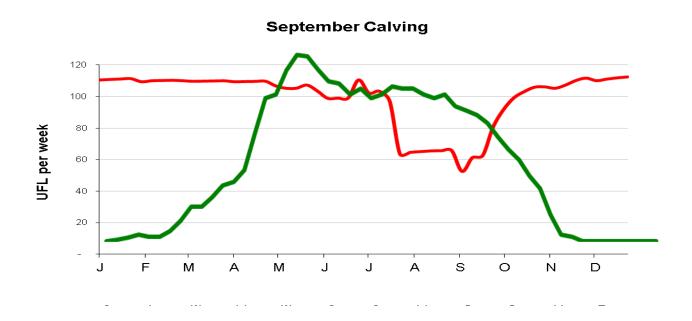




Temporal feed requirement dictated by milk yield, bodyweight, and stage of lactation

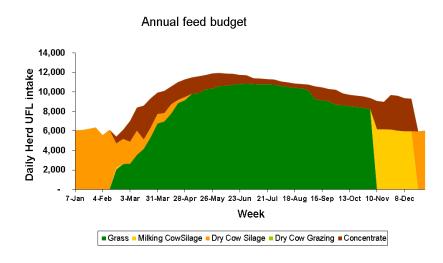


Synchrony of grass supply and feed demand- calving pattern



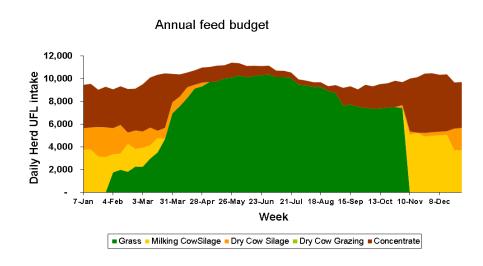


Effect of Calving Pattern on Annual Feed Budget





- Reduced demand Nov-Mar
- Simplified feeding
- Lower silage costs

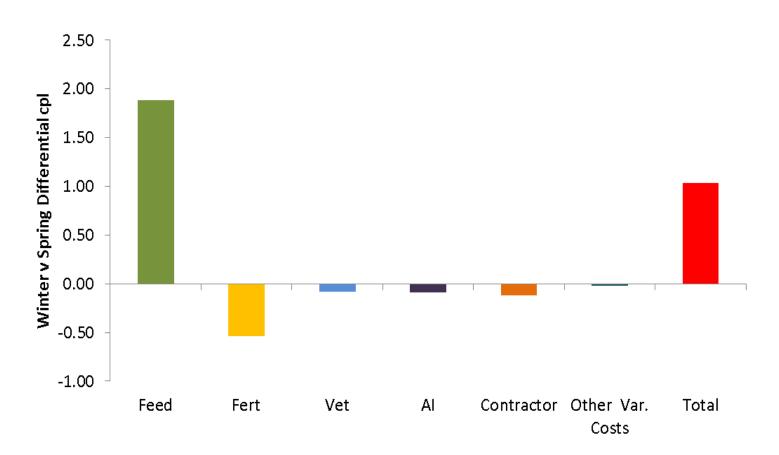


Split calving pattern

- High winter feed demand
- Complex feeding management
- Quality silage a priority

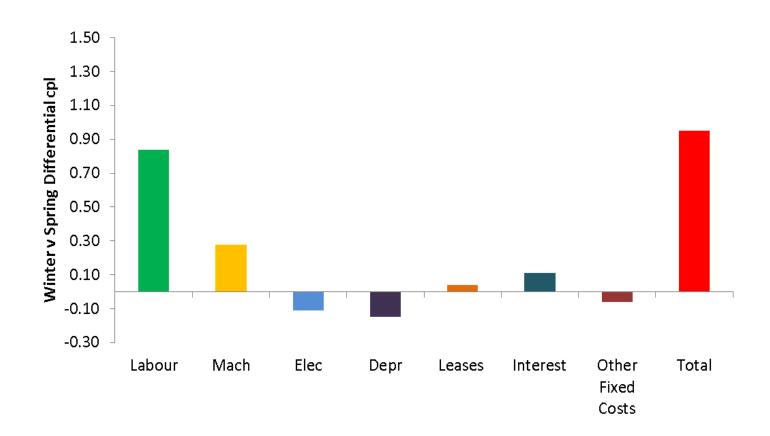


Variable Cost Comparison – Liquid Milk v Spring Milk herds





Fixed Cost Comparison – Liquid Milk v Spring Milk herds

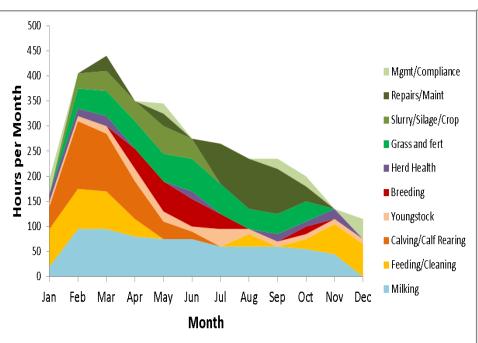


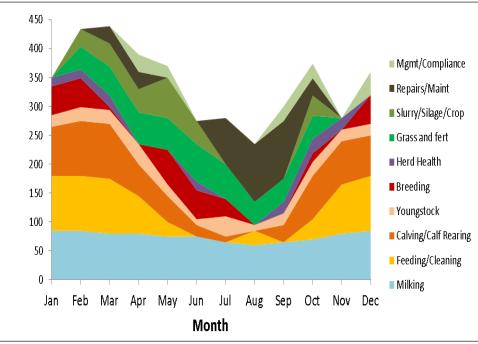






Annual labour demand for seasonal and year-round systems





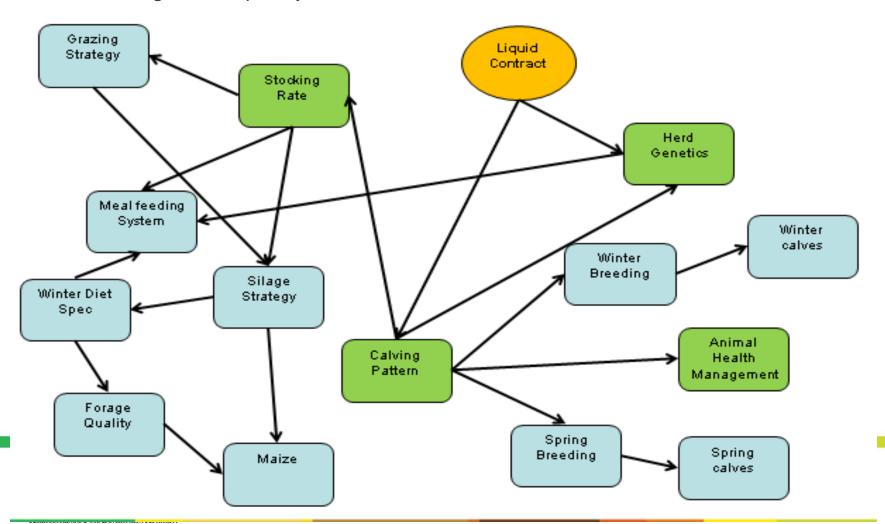






Technical Efficiency

- Increase rate of technical efficiency gain by:
 - Streamlining the number of critical system decisions
 - Reducing the complexity of those decisions







Repeatability/Volatility



Repeatability (Internal)

Greater system complexity:

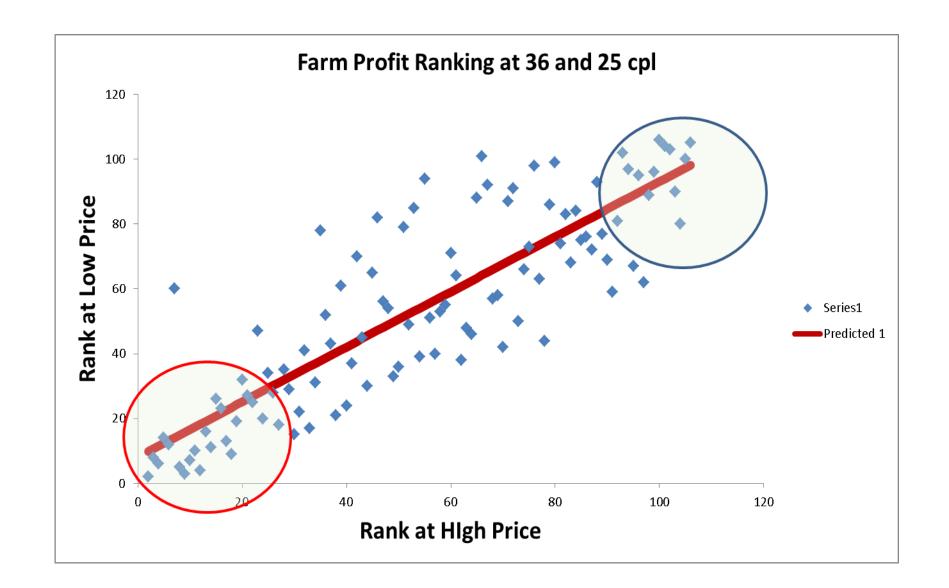
- Increased risk of sub-optimal performance (forage quality, fertility)
- Reduced capacity for profitable internal growth (resource limits)
- Effects likely to be scale-dependent

Volatility (External)

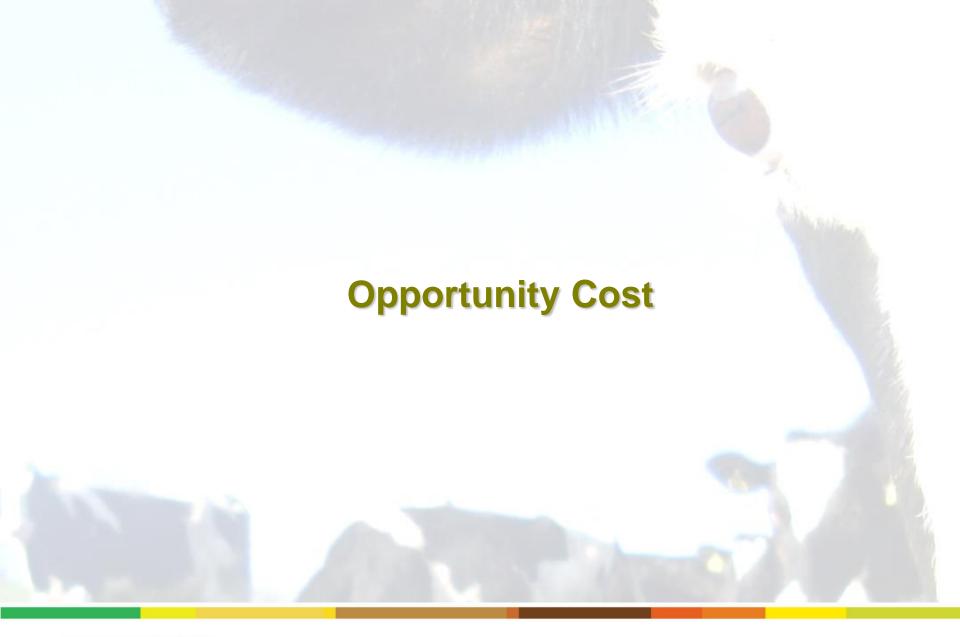
Increased exposure to rising volatility:

- International grain markets
- Feed protein costs
- Energy costs
- Cost of capital











Opportunity Cost...

- 'The value of the best alternative foregone'
- In a post-quota environment
 - Potential for profitable expansion within current land resources
 - Collaboration/partnerships to extend current operations
 - Opportunities to develop greenfield operations in some cases
- Simple, repeatable dairy farming systems are best placed to exploit these opportunities
- Many liquid milk farms may best be served by exiting liquid milk in this context



In summary

Input Costs

Feed - structural differences

Calving pattern

Labour

Paid labour differential

Own labour - a hidden cost

Opportunity Cost

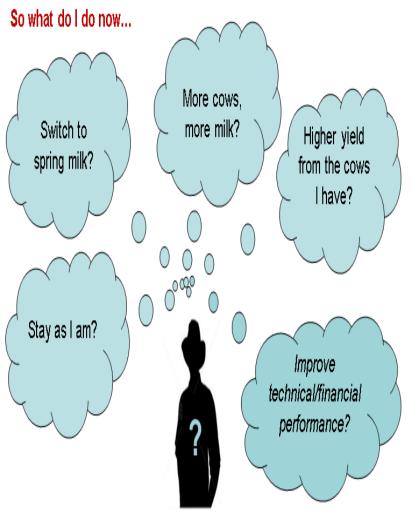
Post quota growth

Technical Efficiency

System complexity
Reduced efficiency gain

Volatility/ Repeatability
Complexity reduces repeatability
Exposure to input prices





Decision time for individual farms:

- Need to drive technical efficiency gains
 - Grass utilised & herd fertility
 - Not a catchphrase
 - Simpler for spring milk?
- Relative scale of liquid milk diluted
 - Overhead costs
 - 'Critical mass' of autumn calving
- Any additional margin for liquid milk is bonus-dependent
- Optimal use of available labour
 - Economics
 - Lifestyle/personal workload





