

# icos DairyProgress



2011

Issue: 1

Subject:

## Dairy Industry Expansion

***Readying the Irish Dairy Sector for Future Market Opportunities – Review of Seasonality, Working Capital and Objective Pricing***

### Executive Summary

The *icos DairyProgress* updates are policy and informational documents distributed from time to time to ICOS affiliated co-ops or ICOS working groups for discussion. They aim to promote and facilitate debate as to the how best to achieve the strategic goals of the Societies, and their dairy farmer members.

The current debate on the future for the industry, post quotas, has concentrated on the mechanics of managing milk flows, and ensuring that the industry can put in place processing facilities to handle the additional milk. This is understandable, and necessary, but perhaps we should take the opportunity to step back a little from the debate, and try to consider what we actually want to achieve.

Where does the Irish dairy sector see its place in the world in the future? Does it see the elimination of quota constraints as a challenge to be overcome, or an opportunity to realise the potential of thousands of dairy farmers. There is no doubt but that there is now a fantastic opportunity for Irish dairy farmers and their co-ops to grow the industry, to achieve real scale and efficiency, and to become

world leaders in dairy production, innovation, and trade.

In order to realise this potential, and to enable Irish Co-ops and their members to become real players in the world dairy market, the sector needs to examine the relationship between co-ops and their members, how milk is priced, and the pricing signals used to encourage optimum production patterns.

The milk pricing and payment model which has evolved in Ireland, as a result of quota constraints and short term milk price competition between neighbouring co-ops. There may also exist a degree of subsidisation from other business units in the co-ops. Future milk price transparency is paramount. In the context of future milk supply increases greater capital expenditure and working capital requirements, coupled with increased volatility and customer demands for higher quality standards and more regular supply.

The ICOS KPMG Chairman & Executive Working Group is encouraging a cross industry debate on new milk pricing tools, which send clearer signals to farmers in relation to seasonality, quality, market risk, and the true value of the milk they produce.

vision | leadership | value

## 1.0 It starts with the Market.....

Since the introduction of quotas in the mid-1980's Ireland's potential to grow its dairy industry has been limited. Figure 1.1 illustrates how Irish Milk Production doubled between 1965 and 1985. With the introduction of quotas in the mid-1980's, the expansion and growth of the Irish dairy sector ground to a halt. The Food Harvest 2020 predicts that the five years following the abolition of quotas in 2015, Irish dairy output will increase by 50%.

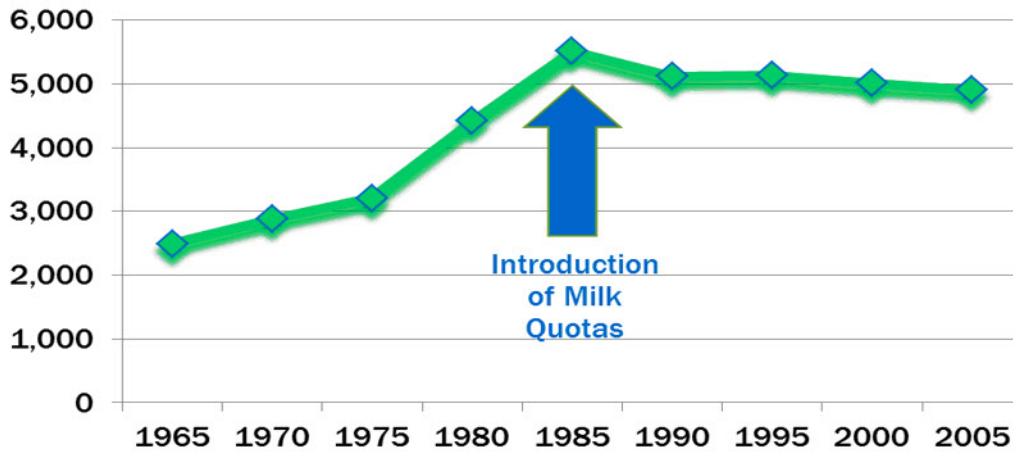


Figure 1.1

Even though the expansion of the Irish dairy industry has slowed dramatically, expansion of the global dairy industry has grown by about 150% during the same period, as illustrated in Figure 1.2

**Figure 2-1: World milk production and % of milk in world dairy trade**

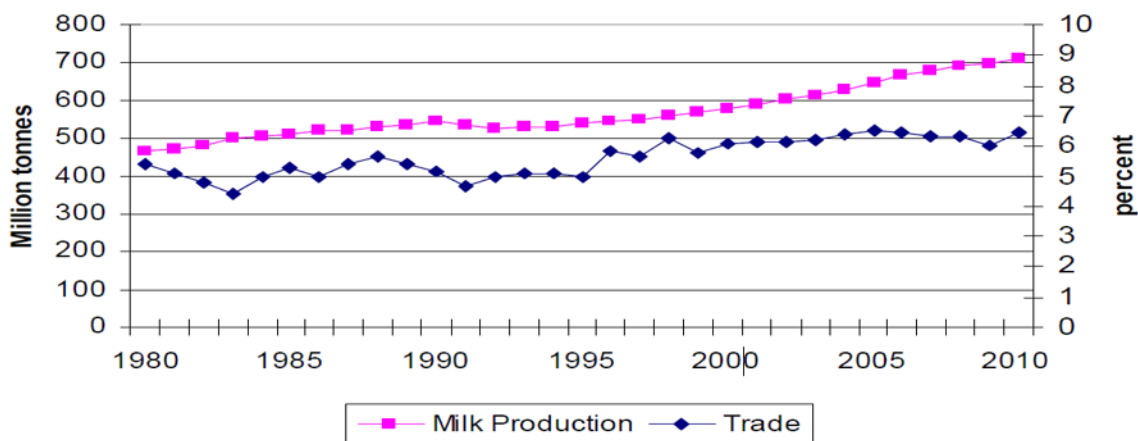


Figure 1.2

Source: FAO Stat, European Commission and Authors' Estimates

The following graphs 1.3 & 1.4 illustrate where the domestic growth in milk production has taken place, primarily in Asia and South America.

### 2011 World Forecast Milk Output - Bn Litres

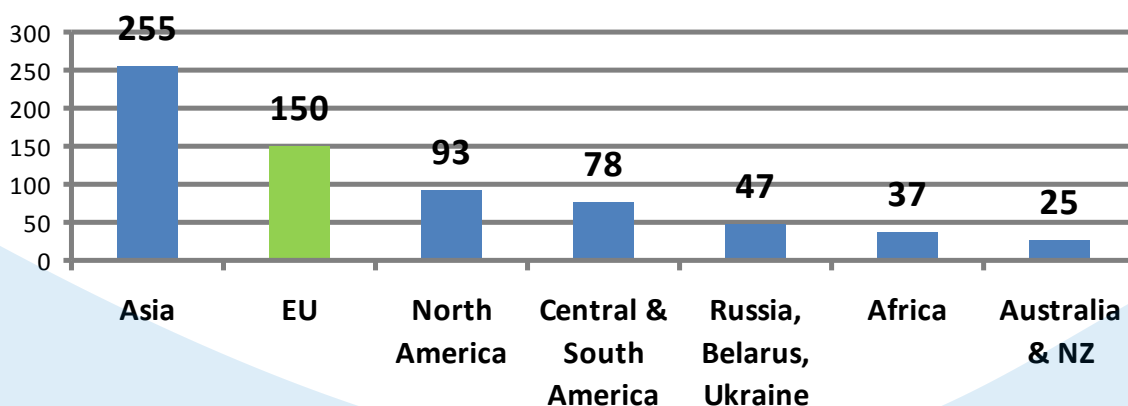


Figure 1.3

## Production Change 2011 vs '07-'09 Average

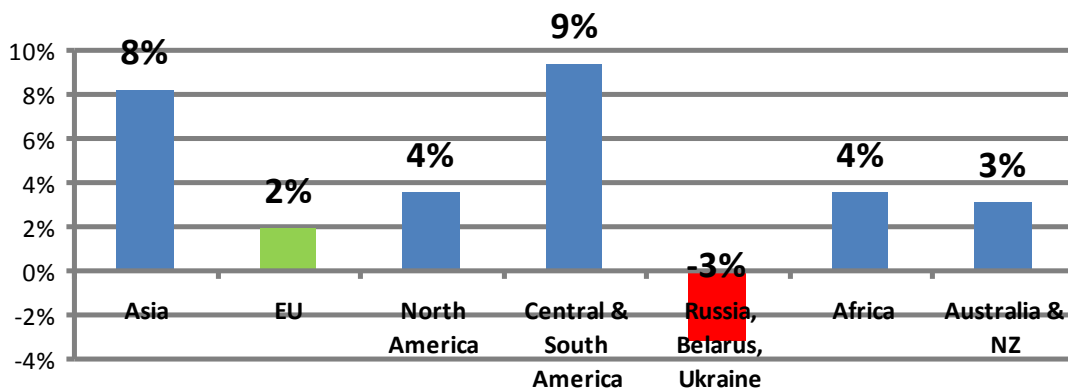


Figure 1.4

Even with the dramatic expansion of milk production over the past couple of decades, the percentage of milk production traded internationally as dairy products remains low.

Only about 7% of the world's dairy products are traded.

Between 2000 and 2009, New Zealand grew its share of world dairy trade from 19% to 27%, while Europe's share dropped from 38% to only 24%. The progress achieved by our New Zealand competitors demonstrates the degree to which Europe been left behind in world markets, but also the potential which the Irish dairy industry now has to make up lost ground.

### Dairy Exporting Blocks Marketshare - 2000

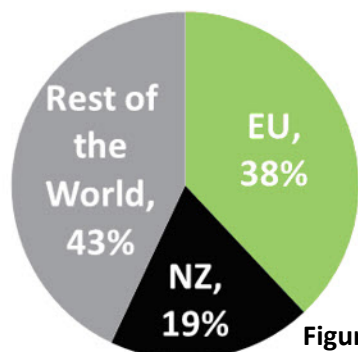


Figure 1.5

### Dairy Exporting Blocks Marketshare - 2009

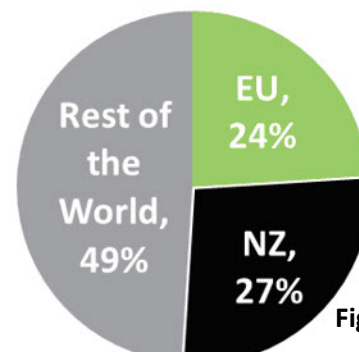


Figure 1.6

## 2.0 The Opportunity for Ireland....

### Irish Milk Production

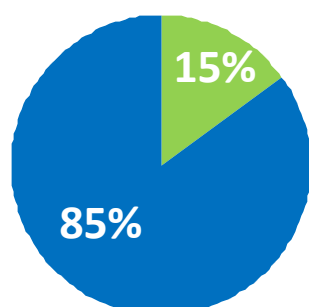


Figure 2.1

■ Consumed in Ireland ■ Exported

With a milk pool of approximately 5.3 billion litres, Ireland accounts for less than 1% of the world's milk pool.

Of this milk pool the vast majority of this milk is exported overseas in dairy products. Ireland is an exporting dairy country, we only consume about ~15% of our produce domestically in Ireland. With the predicted expansion in Irish Milk production post-2015, the percentage of Irish Milk production dedicated for export in dairy products will continue to grow.

Ireland's dependency on the Export Market is further highlighted (Figure 2.2) when we compare our milk production self sufficiency with our EU neighbours.

## Self Sufficiency in Milk Production

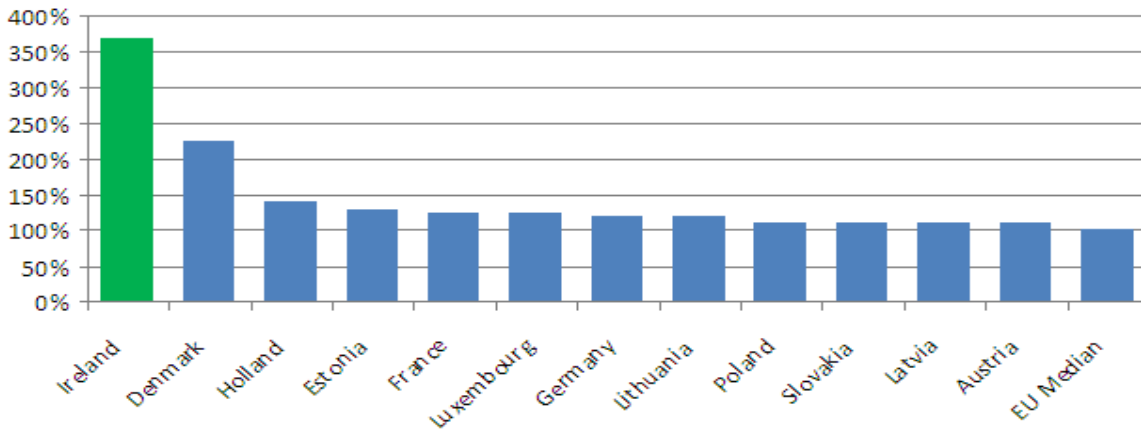


Figure 2.2

This presents a significant opportunity for the Irish Dairy Industry. We are a net exporting dairy country, poised for significant growth. It is worth noting that when quotas were introduced in Ireland in the 1980's the capacity of the New Zealand dairy industry was similar to Ireland's five billion litres. In the intervening time New Zealand's milk output has trebled. It now exceeds sixteen billion litres per annum.

### 3.0 Growing our Industry Profitably...

The years to come present significant opportunities for Irish Dairy Co-operatives and its dairy farmer shareholders to capture a larger market share of the global dairy export market.

However, in order to capitalise on these growth opportunities, there are a number of key areas that the sector needs to focus on ensure both a competitive advantage and profitability. We ask our member boards to reflect on three key areas:

- Seasonality
- Working Capital
- Objective Pricing

### 3.1 Seasonality

#### Seasonality of Irish Milk production

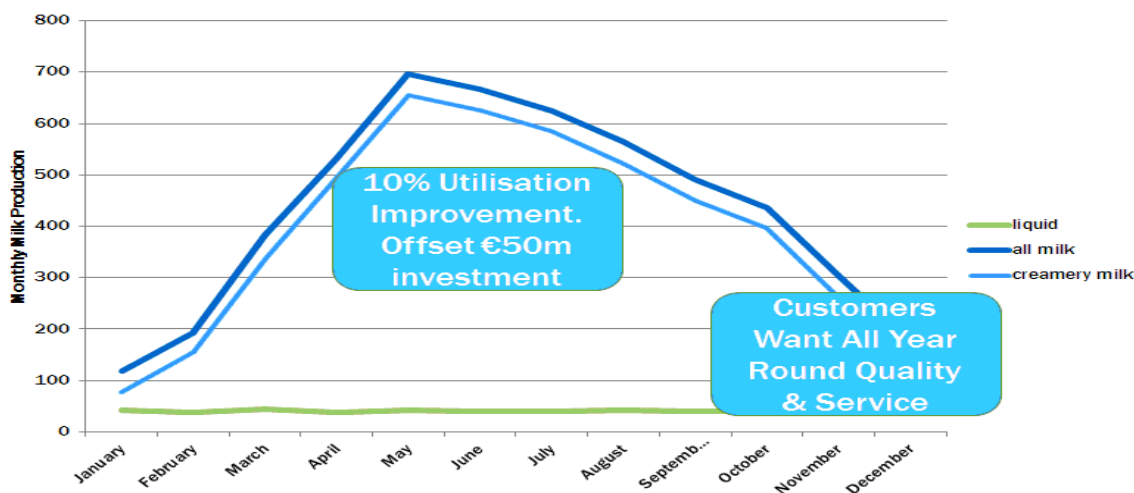


Figure 3.1.1

Ireland's grass based milk production system provides the Irish dairy industry with significant cost benefits. However, the large volume variations between peak to trough milk supply are having an impact on our competitiveness in a number of ways;

- **Customers want product on a year round basis:**
  - Producing such a dramatically high level of supply over the two peak months exerts enormous pressure on current facilities. In order to handle the supply level, processors are forced to divert milk into less profitable products, just to get it processed. This leads to lost income, and to production inefficiencies, and this cost should be factored into milk prices at peak.

- o Maximising a seasonality profile around a milk peak in May / June results in a quality milk supply for only 7 – 8 months of the year. We would like to see this extended to 10 months of the year. Reducing milk supplies (percentages) at peak, and beefing up supply on the shoulders would help us better serve our customers, allow us to develop partnership supply and product portfolio arrangements. This could help our farmer owned co-operatives build long-term supply and pricing arrangements with key partners, thereby helping to reduce pricing volatility and build long term strategic value on the product portfolio (thereby helping to maximise return to the farmer through higher milk prices).
- **Maximising Capacity Utilising will Off-Set Capital Expenditure**
  - o Reducing the peak somewhat and increasing milk on the shoulders will also help the industry offset some necessary capital expenditure within the industry. Studies indicate that reducing our peak to trough ration fractionally could help increase overall annual plan efficiency and utilisation from 59% to 66%. This would effectively allow us to process 10% more milk through existing processing assets. Given that typical CAPEX for installing new capacity is in the order of 15 cents per litre, such a production shift could save Dairy Co-operatives and their shareholder members between €50 to €75million euros before 2020.
- **Maximise R&D Capability and Evolve Product Portfolio**
  - o The current seasonality profile encourages a continued focus on keeping with the status quo and commodity portfolio. If the industry is to maximise the return on investment on existing Research and Development expenditure, we can expect that quality milk will need through assets over greater time periods during the year.

### 3.2 Working Capital

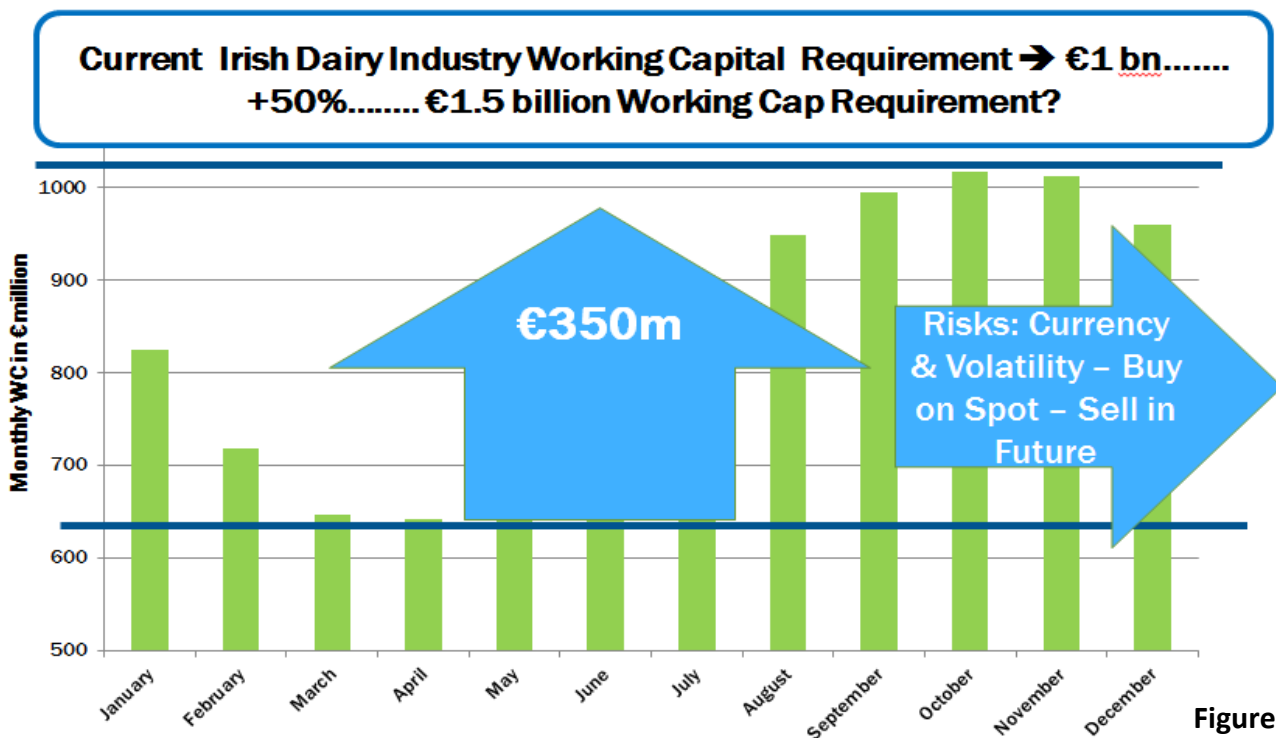


Figure 3.2.1

Figure 3.2.1 illustrates an in-house indicatory analysis by ICOS on the scale of the required working capital required within the Irish Dairy Sector. With today's current milk pool there exists a working capital requirement within the industry in the order of €1 billion, with a yearly high-to-low difference of €350m. Were the planned expansion to occur by 50% this would increase the annual working capital by a further €500m to €1.5 billion per annum. This working capital requirement does not take into account the CAPEX funding required to fund any new capital expenditure for new capacity.

### 3.3 Working Capital

We would ask that boards reflect on some of the core aspects of funding working capital within the industry, for example;

- o **Long Term Strategic Value** – Returning long-term strategic value to its shareholders is a primary goal of a Dairy Co-operative. In order to safeguard and maximise return to its shareholders, the ICOS KPMG Chairman & Executive Working Group feel a thorough review of working capital requirements is necessary before the industry embarks on a foreseen aggressive expansion of the sector.
- o **Managing Risk** – If we were to increase our production by 50%, as predicted in the Food Harvest 2020 strategy, the industry could have an increased Working Capital requirement of €500 million. This is an enormous sum, and serious consideration must be given as to how it is funded. This also means that the industry would be carrying an additional €500 million worth of stock every autumn, just when our Southern Hemisphere competitors come into their production season. In recent years, it is this autumn period which has seen the greatest volatility in markets, and even a 10% fall in markets in this period, (which is not excessively dramatic in the context of 2007 and 2008 market turnarounds), could see €50 million written off the value of Irish dairy stocks.
- o **Market Returns** – As milk capacity increases and the industry expands we will potentially need to find new markets for this product and diversify into a broader range of products, in new markets, with new customers. Figure 3.2.1 illustrates the possible time lag between when a product is processed to the time when the customer pays for the product.

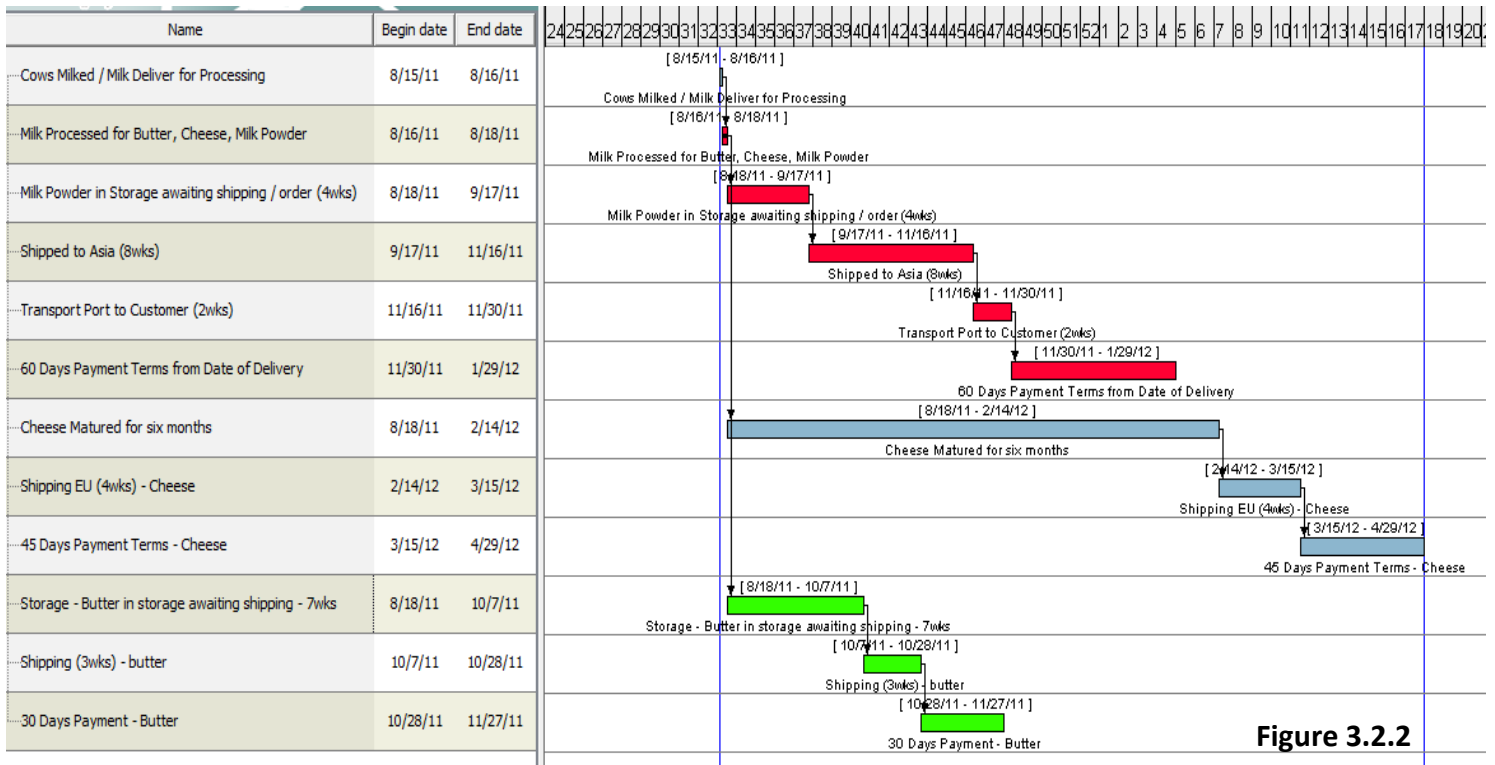


Figure 3.2.2

Three scenarios are presented:

- **Milk Powder into the Asian Market**

The fastest growing milk powder market in the world is in Asia. WMP consumption alone in China is expected to be in the region of 400,000 tonnes by 2015. This is a milk equivalent to ~75% of the current Irish manufacturing milk pool. Currently, New Zealand and Australia account for 90% of Chinese WMP exports. Assuming Ireland starts to ship some of its extra milk in WMP to Asia we could be looking at 10 weeks shipping and delivery times. Because we will be trying to capture extra market share from well established NZ and Australian companies in this market, we are assuming initial credit / payment terms of 60 days in our analysis.

- **Cheese for EU / Russian Markets**

Maturing cheese is a time consuming process which can go between a month or so to close on 12 months. For this analysis we have assumed an average maturing time of six months and slightly more favourable credit terms as we are selling into more mature markets.

• **Butter**

Irish Butter and the Kerrygold brands are one of the most recognised and established butter products in the market place. We have assumed that the average delivery times and payment times will be shorter due to its established place in the market.

This same information is presented again and summarised in Figure 3.2.2 below:

- **Milk Powder to China** - product produced from cows milked on August 15<sup>th</sup> 2011 will be paid for by January 29<sup>th</sup> 2012 - From the day the cows are milked until payment for product, 166 days (5½ months) will have lapsed.
- **Cheese to EU Russia** - product produced from cows milked on August 15<sup>th</sup> 2011 will be paid for by April 29<sup>th</sup> 2012. From the day the cows are milked until payment for product, 258 days (>8½ months) will have lapsed.
- **Butter to Europe** - product produced from cows milked on August 15<sup>th</sup> 2011 will be paid for by November 2<sup>nd</sup> 2011. From the day the cows are milked until payment for product, 79 days (>2½ months) will have lapsed.

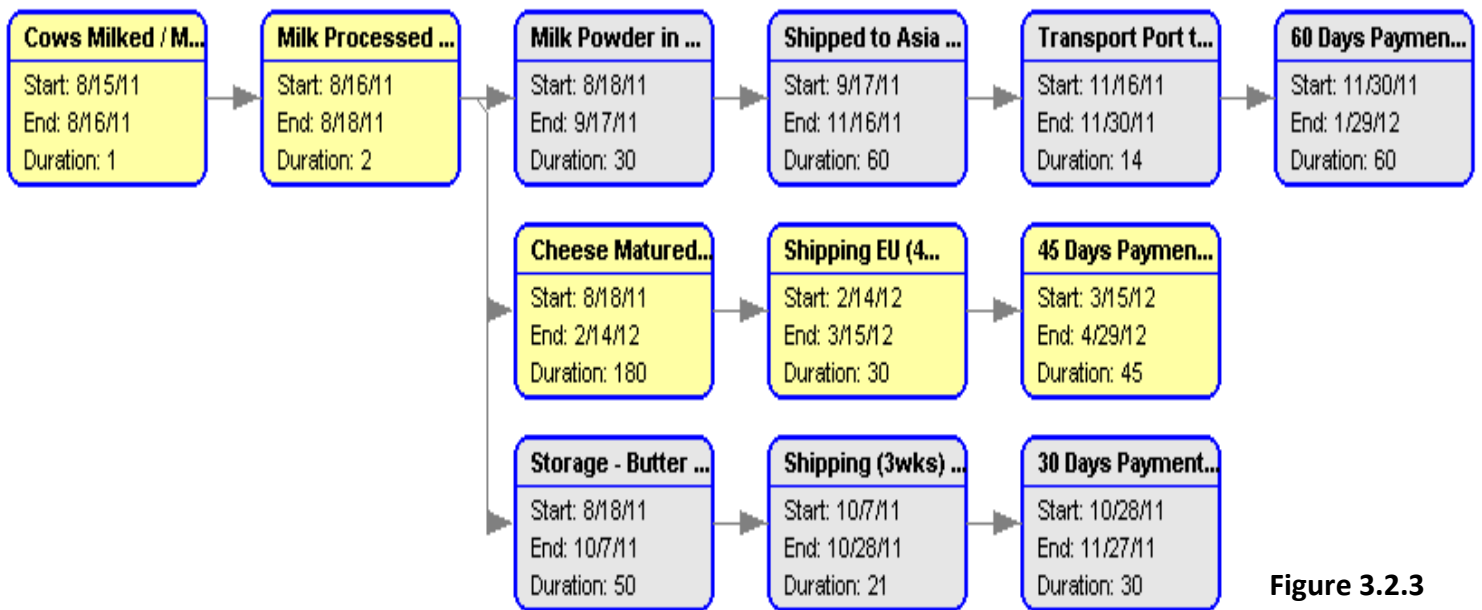


Figure 3.2.3

**3.3 Objective Pricing**

Commercial dairy farmers, in order to make commercial decisions on the future of their own business, as well as planning investment need to be told clearly the commercial value of the milk they produce. Heretofore, milk has been priced, monthly, without clear knowledge as to what it will eventually be worth, and more with respect to what other co-ops are paying, and on the expected returns from other business units. From a processing perspective Figure 3.3.1 gives an indication of profit retention/capex expenditure in dairy processing in selected countries.

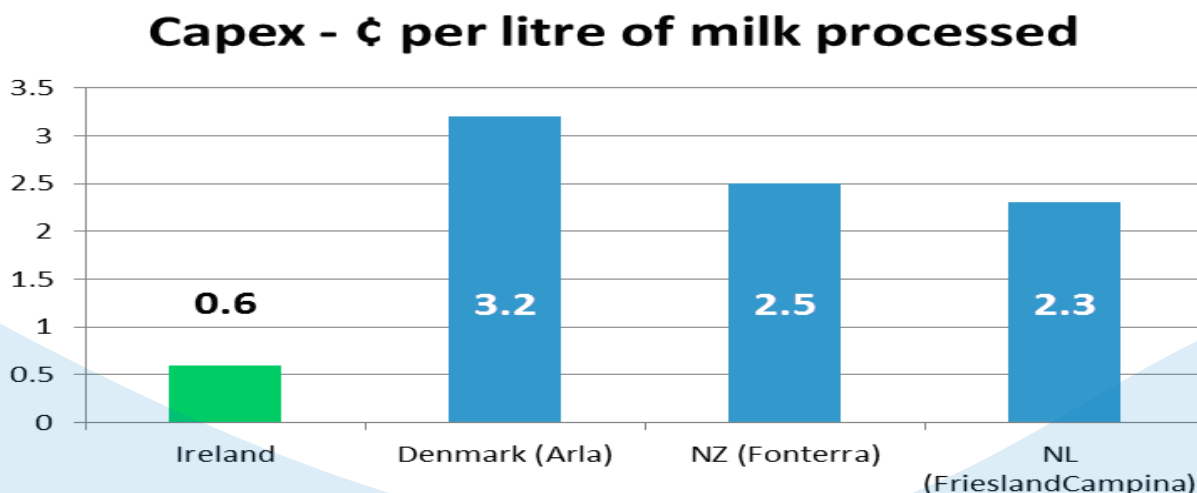


Figure 3.3.1

The industry needs to move to a system of milk pricing, which, from the beginning of the season, attempts to predict a target price for the entire season, and which, rather than being re-examined each month, is only revisited quarterly. For example, co-ops should, in March, and on the basis of an external, agreed pricing index (IDB or otherwise) set a target milk price for the season, and pay a proportion of that price each month, on account. In June, the figure could be re-examined, and stepped up, or stepped down as indicated by market conditions. This could also be done in September, with perhaps a higher % paid on account, and finalised in December, with the full final commercial milk price paid. This process is used to great affect by a number of co-ops in the southern hemisphere. See Figure 3.3.2.

In addition, a 13<sup>th</sup> payment should be made, to reflect additional value added achieved by individual co-ops, to reflect their particular product portfolio, or return on investment.

Company	Fonterra		Warrnambool		Murray Goulburn	
Country	New Zealand		Australia		Australia	
Year	2010/11		2009/10		2010/11	
Total Paid / Year Target Price	\$7.50		\$2.45 Fat, \$5.95 Protein		\$5.50	
	\$	% Target exc. Retro	\$	% Target / Accruing	\$	% Target / Accruing
June (season start)	\$ 4.30	57%	\$2.06 F, \$5.15P	86%		
July	\$ 4.30	57%	\$2.06 F, \$5.15P	86%	\$ 4.75	86%
August	\$ 4.30	57%	\$2.06 F, \$5.15P	86%	\$ 4.75	86%
September	\$ 4.30	57%	\$2.06 F, \$5.15P	86%	\$ 4.75	86%
October	\$ 4.60	61%	\$2.06 F, \$5.15P	86%	\$ 4.92	89%
November	\$ 4.60	61%	\$2.16 F, \$5.35P	89%	\$ 4.92	89%
December	\$ 4.85	65%	\$2.16 F, \$5.35P	89%	\$ 4.92	89%
January	\$ 4.85	65%	\$2.31 F, \$5.65P	95%	\$ 4.92	89%
February	\$ 5.65	75%	\$2.31 F, \$5.65P	95%	\$ 5.25	95%
March	\$ 5.80	77%	\$2.31 F, \$5.65P	95%	\$ 5.42	99%
April	\$ 6.00	80%	\$2.41 F, \$5.85P	98%		
May (season end)	\$ 6.20	83%	\$2.41 F, \$5.85P	98%		
June			\$2.41 F, \$5.85P	98%		
July retro payment	\$ 6.40		\$2.45 F, \$5.95P	100%		
August retro payment	\$ 6.75					
September retro payment	\$ 7.15					
October retro payment	\$ 7.50					

Note: Prices quoted in local currency

Figure 3.3.2

## ICOS Dairy Expert Committee

**Chairman:** Bertie O'Leary (Dairygold Co-operative)

Pat McLoughlin (Arrabawn Co-operative), John O'Brien (Barryroe Co-operative), Danny Collins (Boherbue Co-operative), Jim Russell (Centenary-Thurles Co-operative), Pdraig Gibbons (Connacht Gold), Michael-John O'Donovan (Drinagh Co-operative), Jerry Long (Drombane Co-operative), Liam Herlihy (Glanbia Co-operative), Michael Teahan (Kerry Co-operative), Pdraig Young (Lakeland Co-operative), John Ahern (North Cork Co-operative), Matt Quinlan (Tipperary Co-operative), Hugo Maguire (Town of Monaghan Co-operative)

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