Special Joint Dairy Week and NZX Agrifax Report: "*global*DairyTrade – Instigator of price falls or an insight into global market conditions?"

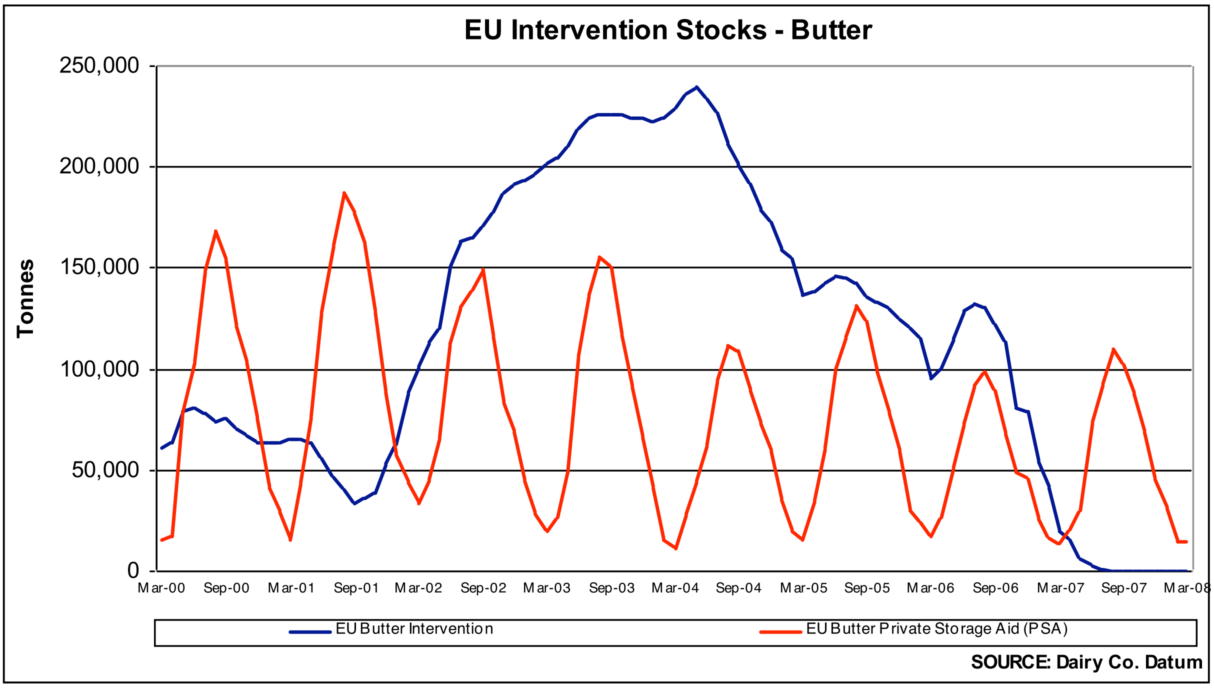
Increasing negative market and media commentary on the effect of *global*Dairy Trade on dairy commodity prices begs the question – is *globalDairy* Trade responsible for the price decline? To answer this question, first the underlying factors which initially drove dairy commodity prices up need to be considered and then rationalised against those which have now driven prices down.

Consumption Growth:

Worldwide consumption of dairy products during the period leading up to 2007 grew at a steady rate and prices for dairy commodities held relatively steady. During this period consumer demand for dairy products in developing countries increased as the consumption of dairy products rose in line with an increase in income levels. In 2007 demand for fresh milk in China for example was expected to increase by 22% by 2012. Matching this was the growth in demand from traditional dairy consuming countries, the EU and the US. This is illustrated by the 7.2% increase in US cheese consumption over the last five years[1].

2007 Inventory Stocks:

Essential to meeting demand was the erosion of inventory stocks from government storage programs in both the US and the EU. By mid 2007 inventory levels in both public and private storage in the US and EU, along with the stocks held within the supply chain, were depleted. Despite increased milk production worldwide, supply was not enough to keep up with the growth in demand.



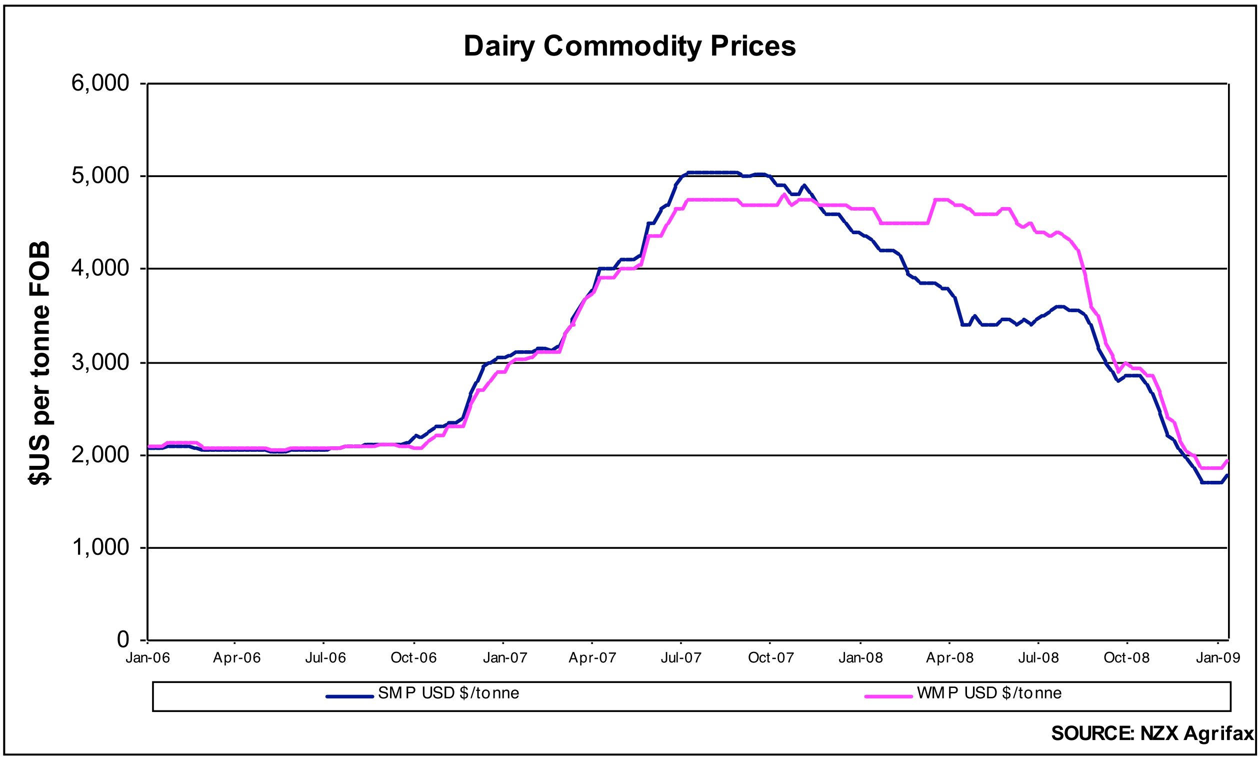
2007 Supply shocks:

Drought in Australia added to the unavailability of stock. Milk production for the 2007/2008 season in Australia was down 5% and largely impacted on milk powder exports which fell by 19% compared to 2006/2007 exports[2]. The availability of stock globally was further hampered in 2007 by export taxes imposed on dairy exports from Argentina in a measure by the country's government to control inflation.

The ongoing drought in Australia, restrictions on exports from Argentina and the threat of drought in New Zealand combined to withhold supply and uphold commodity prices throughout 2007 and early 2008. As a result, ingredient users were increasingly unable to source product, in particular milk powders (the main Australasian exports), from anywhere in the world. Incredibly high and unprecedented spot prices ensued as buyers competed for the limited amounts of product not already under contract.

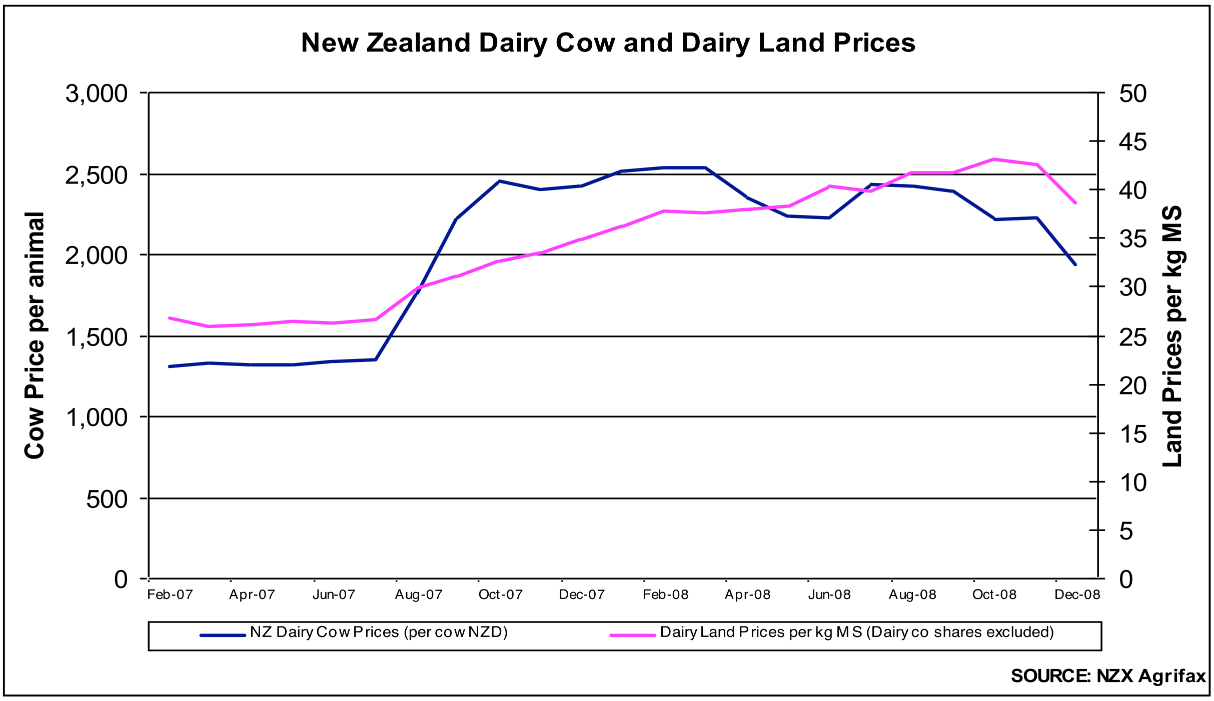
[1] United States Department of Agriculture ("USDA") Economic Research Service

[2] Dairy Australia



Increased Domestic Supply in New Zealand:

By the end of 2007 worldwide supply began to respond to the higher prices. In New Zealand, farmers stepped up the use of additional supplementary feed (which was viable given the higher returns) to increase individual cow productivity levels. The numbers of cows in-milk also increased as poorer quality cows which in leaner return seasons would normally be culled, were retained. The graph below outlines the increase in cow and land prices between July 2007 and the end of 2008. Cow numbers in New Zealand are predicted to have increased by approximately 200,000 cows up to the end of 2008[3].



[3] Dairy Australia

Dairying land also reached record prices during this time as significant tracts of land were converted to dairying. In October 2008 the average land price peaked at NZ$52 per kg of milk solids[4]. It is rumoured that land prices reached as high as NZ$74 per kg of milk solid in key dairy regions.

Increased supply and global demand for dairy products also resulted in a number of new dairy processing plants being commissioned both in New Zealand as well as internationally. Between 2006 and 2008, six new processing plants where opened in New Zealand, all focused on producing whole milk powder ("WMP"). Five of these new processing plants had production coming on line in 2008[5].

Increased Domestic Supply in Developing Countries:

Domestic milk production in countries such as China also increased. From 2003 to 2007 China recorded a 77% increase in milk production. Factors such as improved technology and lower input, land and compliance costs than those faced by farmers in developed countries, enabled farmers in these countries to produce dairy products cheaper than imported product.

Increased Domestic Supply in EU and US:

In the EU, milk production in 2007 increased by 2% as milk quotas increased as part of the EU Common Agricultural Policy review and in response to higher milk price signals linked to the high international commodity prices. Increased milk production was again seen in 2008 resulting in a 20% increase in the EU's WMP exports. After EU inventory stocks were exhausted, increased milk production was expected to be absorbed by the domestic market, particularly by new EU member states where incomes where increasing.

Increased milk production was also seen in the US which increased its milk production by 3% in the first half of 2008 (on 2007 figures)[6]. Traditionally the US has required an annual 1.5% increase in milk production to keep pace with the domestic growth in demand for dairy products.

Weakened Demand:

By the end of 2007, the high dairy commodity prices had flowed through to end users. During the first half of 2008 prices held steady as wholesalers built up product levels to avoid being caught short again as they were in 2007. However, this period also saw consumer demand start to weaken. High commodity prices resulted in increased retail prices. In New Zealand, a 1 kg block of cheese increased from NZ$6.98 in January 2005 to peak at NZ$11.19 in September 2008[7]. Ingredient producers and consumers adjusted their purchasing, processing and consumption patterns accordingly. Some product substitution to non-dairy products such as soya occurred, or smaller quantities of product were purchased and/or processing was amended (for example powder products were diluted further).

US Government Intervention Stocks:

By October 2008 US skimmed milk powder ("SMP") prices triggered the recommencement of the US governments' intervention program. According to *The New York Times*[8] the US Agricultural Department has committed to buying 111.6 million pounds of milk powder from US farmers at US$0.80 a pound. Approximately 61,000 tonnes of SMP was placed into the storage program over the past three months and around 150,000 tonnes of SMP is predicted to be stored in 2009[9]. The US government last intervened and bought milk powder for storage in June 2006.

EU Government Intervention Stocks:

At the same time, EU SMP prices decreased to below the intervention price (US$2,325 per tonne). However, the EU scheme is designed to soak up excess product produced during the northern hemisphere summer,

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[4] Real Estate Institute of New Zealand, Press Release, 16 January 2008. Note: average price includes Fonterra Fair Value Shares

[5] USDA FAS, "New Zealand Dairy and Products Annual Dairy Industry Report 2008", 20 October 2008

[6] USDA

[7] Statistics New Zealand Food Index

[8] "As Recession Deepens, So Does Milk Surplus", The New York Times, Andrew Martin, 1 January 2009

[9] USDA World Agricultural Supply and Demand Estimates, 12 January 2009

and despite the trigger price level being reached, product will not enter the EU storage program until it opens in March 2009. No product is currently held in the formal intervention programs, but from March 2009 the purchase of up to 30,000 tonnes of butter and 109,000 tonnes of SMP at the intervention prices of US$3,820 and US$2,325 per tonne respectively will recommence[10].

In 2008 160,000 tonnes of EU produced butter was put into Private Storage Aid ("PSA") and then released back into the market from mid August onwards, further contributing to the fall in market prices. In an attempt to support EU domestic butter prices PSA opened on 1 January 2009, two months earlier than usual.

Economic Slow Down In Growth Markets:

By late 2008 it was evident to market participants that supply was exceeding demand and the expected retraction of dairy commodity prices commenced. The collapse of the US market and the ripple on effect of the global recession added fuel to the price decline. As stated by DBS Bank Limited in its Daily Breakfast Spread: "the support for commodity prices has dissipated and the drag from the depressed global demand is beginning to show."[11]

Asian economies also suffered in 2008 with Bloomberg reporting that "the MSCI's Asian gauge plunged by a record 43 percent last year as the world's biggest economies slipped into recession[12]. Importantly for New Zealand, the Asian markets are key import markets for New Zealand produced milk powder. Malaysia and Indonesia are New Zealand's second and third largest import markets for WMP, while the Philippines, Malaysia, Thailand and Singapore were New Zealand's largest SMP import markets in 2008.

Singapore, New Zealand's fourth largest market for SMP, is expected to have a negative GDP in 2009. This is a significant fall on the 7.3% to 9.0% growth in GDP recorded in the period for 2004 to 2007 and also the 4.5% growth in GDP predicted for 2009 by the International Monetary Fund ("IMF") back in August 2008. Singapore's economy has contracted by a massive 12% (on a seasonally adjusted, annualised basis) during Q4 of 2008, indicating just how hard the Asian economies, have been hit. Malaysia, New Zealand's second largest market for milk powders (following Venezuela), is dependent on palm oil and rubber exports. As shown in the graph below palm oil and rubber prices have fallen significantly in the second half of 2008. GDP for Malaysia in 2009 is expected to fall to 3.3%

World Commodity Price Decline:

In mid 2008 the price of many leading world commodities peaked, generally at levels higher in relative terms than WMP's peak price at this time. The increased uncertainty caused by the credit crisis in the second half of 2008 decreased demand, and prices for these leading commodities, including WMP, fell away sharply. In relative terms and as shown in the graph below, WMP prices have shown much less volatility than all other leading commodities.

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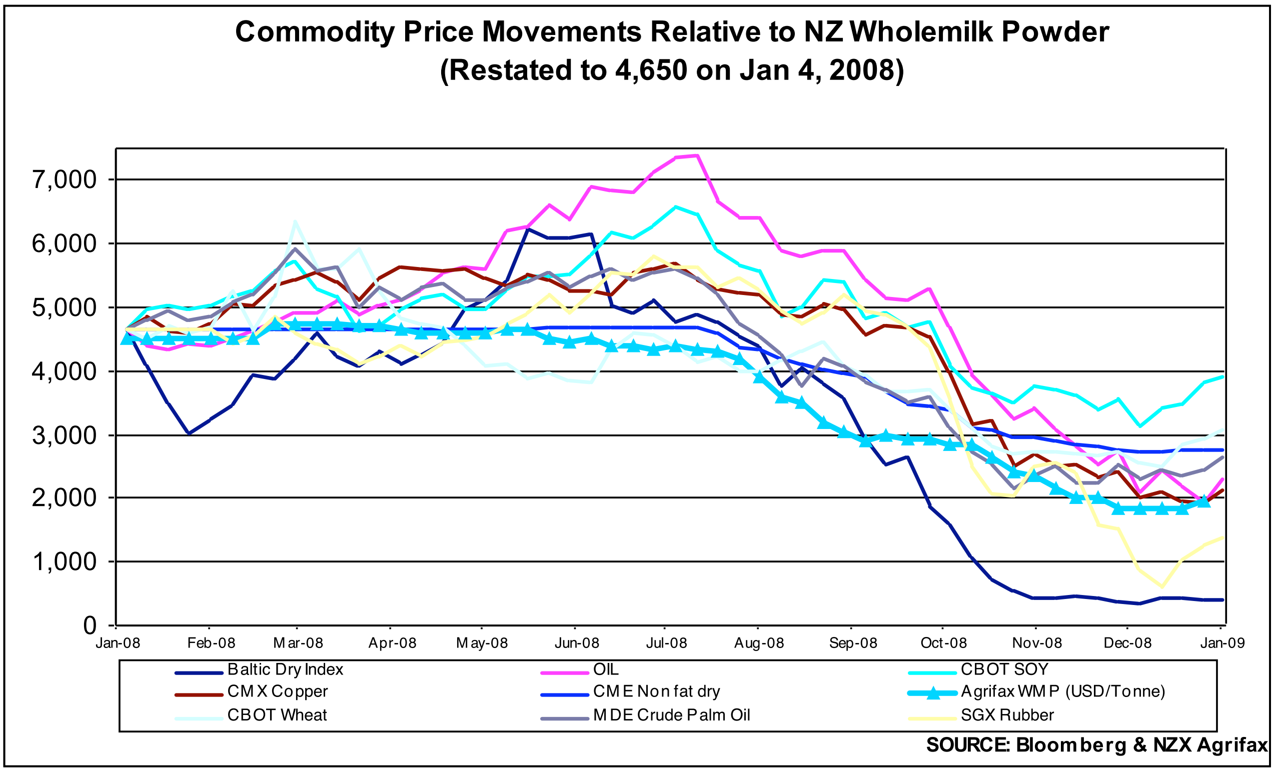
[10] USDA FAS, Diary : World Markets and Trade, December 2008

[11] "Daily Breakfast Spread", DBS Group Research, DSB Bank Limited, 5 January 2009

[12] Bloomberg "Asian Stocks Advance on Policy Optimism; Toyota Motor Falls



The Baltic Dry Index ("BDI"), which measures the cost of transportation of goods via ship, is influenced by supply and demand for hard commodities such as grain and iron ore. The BDI is considered a leading economic indicator of future economic growth and production. As can be seen on the graph above the fall in the BDI has been extreme over the past six months, with the Index moving from a record high on 20 May 2008 of 11,793 to lose over 90% of its value in the 6 months to December 2008.

Ongoing Demand Decrease:

In the current economic climate the often used statement that because people have to eat, demand for products such as dairy commodities are largely unaffected has shown to be largely untrue. While dairy commodities have not been affected to the extent that consumer goods markets such as the automobile industry have, there has been a strong fall off in demand. Rabobank International managing director of food and agribusiness research, Deborah Perkins is quoted in *The New York Times*[13] saying "In some of these countries where dairy hasn't been a big part of their diet, this is where we are seeing people pull back." Falling income levels of the middle class in developing markets such as China where per person dairy consumption nearly doubled over the past five years, has rapidly retracted the demand for dairy products. These consumers can still remember what they ate before they were able to afford dairy products and are able to revert back to their traditional food sources. Developed markets have also been hit hard, with pizza chains spreading the cheese a little thinner and consumers buying smaller portions of product.

Key Import Markets:

Markets such as Russia (New Zealand's fourth largest dairy export market), Venezuela, Nigeria and Algeria which are heavily dependent on imported dairy products have traditionally purchased surplus product, limiting the excess volume available on the world market. Accepted as potentially vulnerable markets, political and economic upheaval has in the past resulted in these markets being shut down to imports at various times. The nature of the current economic crisis is so widespread that these key import markets have all reduced if not closed their imports at the same time forcing more production onto the world market.

Many of these important dairy import markets are dependent on oil exports. Importantly for New Zealand, these countries have been traditional importers of its dairy products. Venezuela, Saudi Arabia, Algeria and Nigeria - all major oil producing nations - traditionally purchase 30% of New Zealand's WMP production. From August to October 2008 there was a significant reduction or halt in the volume of New Zealand product exported to each of these countries. Venezuela, New Zealand's largest export destination for WMP, has

[13] "As Recession Deepens, So Does Milk Surplus", The New York Times, Andrew Martin, 1January 2009

historically purchased between 5,000 and 13,000 tonnes of WMP per month. In August 2008, Venezuela purchased no product from New Zealand[14] .

Buyer Reluctance:

With short-term credit sources drying up and concerns about the global recession deepening, some importers face difficulties financing purchases while other wholesalers face having stores of product purchased at levels substantially higher than current market prices. With consumer demand falling, some wholesalers have faced difficulties on-selling product. Unsurprisingly, wholesalers, nervous about the rapidly retreating prices and aware of increased milk supply available during the southern hemisphere production peak in October, have held off buying stock or have only bought in small quantities to cover short-term obligations.

US and EU Production and Subsidised Exports:

As consumption levels for products such as cheese have fallen away in the US and the EU, more milk production in these regions is converted into less perishable products such as SMP and butter (which can be stored frozen). An increased supply of SMP and butter is expected to hit the already oversupplied world markets in the short-term or when the product is released from storage programs.

At the time of writing this article, the EU announced the reintroduction of export subsidies for dairy products, aimed at propping up EU dairy producers. World dairy commodity prices are expected to suffer as a result of this action. There is further downside risk that the US will retaliate, and also reintroduce export subsidies. Phil York the economic and commerce spokesperson for New Zealand's Federated Farmers "sees no bigger man-made threat to the economic well being of all New Zealanders than the risk posed by neo-protectionism[15]". As the recession deepens, the EU and the US will protect their own markets at the expense of world markets. Tom Suber, president of the US Dairy Export Council stated that the reintroduction of EU dairy subsidies would run the risk of "prolonging the down cycle in which the world's dairy industry currently finds itself and significantly delaying natural market recovery[16]".

Break Away Selling Method:

*Global*DairyTrade ("gDT"), established in July 2008, is a break from Fonterra's traditional selling methods. A limited volume (25%) of Fonterra's total WMP marketed is sold via the monthly auction. The majority of Fonterra's dairy commodity sales are still carried out via direct and closed negotiations with buyers as only product of certain specifications is available via gDT. The importance of face to face contact with customers remains for Fonterra as it does for other dairy companies such as Westland Milk Products Limited who pride themselves on their ability to meet individual client requirements.

Price Falls:

The final average auction prices over the past seven months have followed the failing confidence in the world economy and have dropped from US$4,395 per tonne to US$2,017 per tonne at the January 2009 auction. During the same period of time the average WMP commodity prices recorded by us have fallen from US $4,300[17] to US$1,850[18]. gDT recorded a fall of 14% in early September as the economic crisis unfolded and increased nervousness was evident in the market. From October the fall in WMP price has mirrored spot market prices[19] and in the weeks that the gDT auctions have taken place the auction price has matched the WMP price fall recorded in the preceding weeks[20].

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[14] Statistics New Zealand

[15] "Return of EU Subsidies "Neo-Protectionism", Scoop, Federated Farmers Release, 20 January 2009

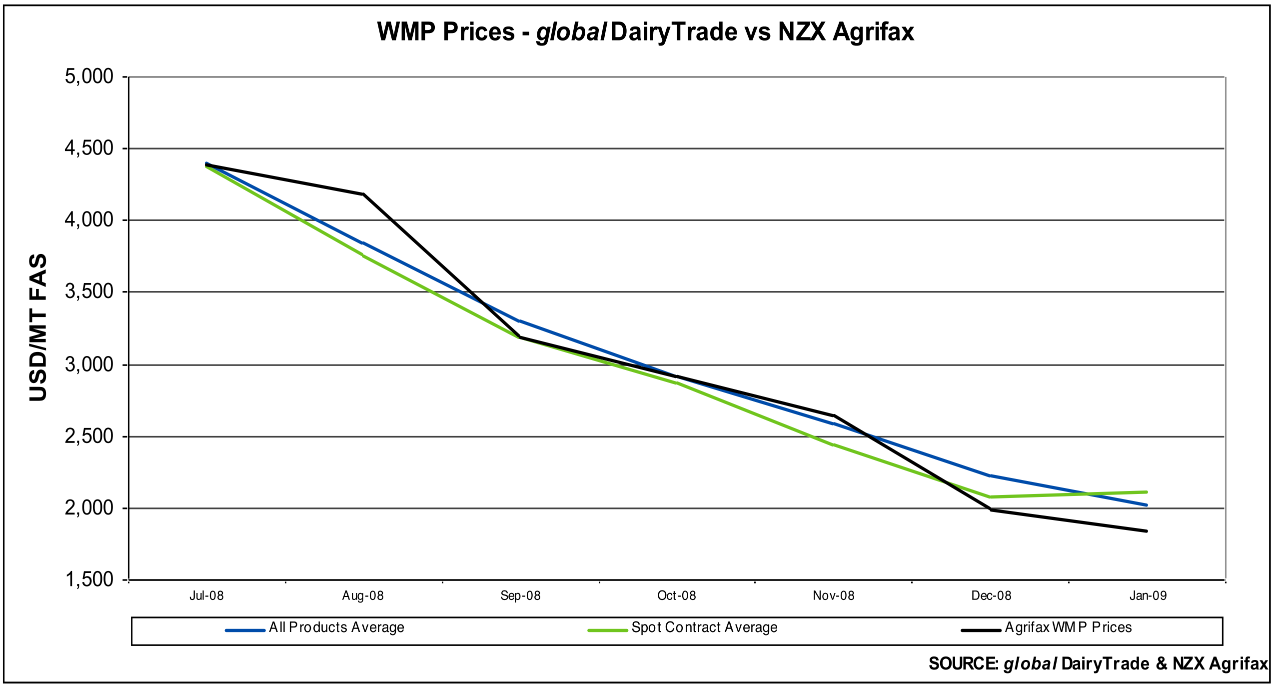
[16] Dairy Globe, 19 January 2009

[17] NZX Agrifax Monthly Dairy Report, July 2008

[18] NZX Agrifax Weekly Dairy Report, 9 January 2008

[19] As collected by NZX Agrifax from market participants

[20] Ibid



Transparency:

The benefit of the auction system is the transparency it provides of where the WMP market is currently sitting. In a downwards moving market this is advantageous to the buyer and in an upwards market, assists the seller. This also provides buyers with an additional tool when negotiating purchases outside of the auction process. Market participants have always been able to discover the current prices for dairy commodities with a little market research or a subscription to a research service. The difference with the gDT system is that pricing data is publically available on its website immediately following the monthly auctions. The final gDT auction price sets a market reference price for all sales of WMP. This reference price and the availability of it, eliminates any short-term window to sell product at inflated prices to the final auction price. Unfortunately, what gDT lacks is information on the market factors driving the WMP auction price. A lack of information leaves the reader of gDT's data to make their own conclusions on the reasons behind the price movements.

Conclusion:

The rapid rise in dairy commodity prices during in 2007 occurred due to continued growth in demand outstripping supply levels. Demand for dairy products rose in line with increased income levels of the middle class in developing countries and consumers in developed countries increasingly living beyond their means. The dramatic decline in demand for dairy products over the past six months is the culprit behind the sharp decline in commodity prices. The decrease in demand was originally stimulated by resistance to the high dairy prices, but has been spectacularly fuelled by the global economic crisis. Increasing supply levels in particular from the EU and US have helped create a perfect storm and have made the recent fall in dairy commodity prices inevitable. The gDT auction price provides the market with an insight into how the dairy markets have been tracking and the direction they will take in the future. To blame gDT for the fall in dairy commodity prices is to ignore the substantial and unprecedented global market factors affecting commodities worldwide.

Back in September 2008[21] we predicted that the existing market factors meant that demand for dairy commodities would be unlikely to pick up until late 2009. The reintroduction of EU subsidies, and the possibility that the US will follow suit, will distort an already depressed world market and have the significant potential to delay any upturn in dairy commodity prices further. The current global recession has largely dictated the demise of consumer demand for dairy commodities. A positive and sustained return of consumer demand is essential to returning dairy commodity prices to levels which are viable and sustainable from a production point of view. With the reintroduction of subsidies and many predicting that the depths of the global recession have yet to be reached, it may be well into 2010 before there is any positive pricing news for dairy commodities.

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[21] NZX Agrifax Monthly Dairy Report, September 2008