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Milk & Dairy Product Production Climbs – What’s *Down* the Road for Milk Prices?

As we enter the start of the 2006 calendar year it is time to take stock of where we are milk price-wise and where we are likely to go in the next 12 months. In this column I will review the trends observed in the cash markets for dairy commodities; take a look at the relationship of butter and cheese inventories to high and low milk prices and finally stick my neck out and provide a forecast for 2006. Let’s get to it!

Cheese Market

After peaking at \$1.73 per pound in last week of January 2005 the CME average cheese price has followed a general downward trend through the end of 2005. Over the last 16 weeks of 2005 the CME average cash cheese price has fallen from the comfortable \$1.50’s to the not so comfortable \$1.35 mark. This is a price not seen since February of 2004. The last time CME cash price for cheese #40 blocks traded below this level as back on June 27, 2003 with a close of \$1.275. The Dairy Market News reports that cheese markets are weak and may remain so well into the first half of 2006. Look for the cheese price to remain low for sometime to come. My crystal ball has the NASS cheese price dipping into the \$1.28 - \$1.30 range by May 2006. Higher cheese production costs as a result of soaring energy costs have severely squeezed cheese to milk margins and made life difficult for the cheese industry. For an in-depth look at the relationship between Federal Order formula pricing and cheese processing margins, check out the “*Federal Order Product Price Formulas and Cheesemaker Margins*” by Jesse and Gould at <http://aae.wisc.edu/future/> under ‘publications’.

Butter Market

The CME butter market has followed a different path, peaking only recently during the third week of September, at \$1.72 per pound. However, by the end of 2005, the CME butter market has also lost steam and has slid down to \$1.35 per pound on the CME cash market. The new cash-settled butter futures trading on the CME suggests butter prices in the \$1.35 - \$1.40 range through May 2006. My forecast suggests that butter prices will trade below this in the \$1.25 range before regaining strength to the \$1.45 level by the end of 2006. If not, be prepared for a substantial drop in milk prices this coming year!

Skim Powder and Whey Markets

The powder markets have been on an upward trend through all of 2005. Nonfat dry milk, benefiting greatly from a very tight world market for skim powder, has increased steadily from a low of \$.88 per pound to its high of \$1.00. In the opening weeks of 2006 NFDN has lost some steam and is currently trading at a price of \$0.95 per pound. The Whey market has moved in lockstep with the skim powder market, rising from a low of \$0.24 per pound to the current high of \$0.33+ per pound. This exceeds the high reached during May 2004!

So, what we have here is a reversal of the roles typically played for these key dairy commodities. The butter and cheese markets are showing signs of weakness while the powder derivative markets are showing signs of strength. This signals a growing imbalance in the all important domestic market for milk and dairy products, with available supply out-pacing commercial demand, and an imbalance in the derivative protein market with commercial demand out-stripping available supplies.

Implications for the Class I Mover

With the cheese price showing the greatest sign of trading lower and butter and powder prices remaining strong, it is possible that we could see a return of the Class IV price as the Class I mover sometime around the mid-January of 2006! The last time the advanced Class IV skim price functioned as the Advanced Class I mover was back in February 2002. This is not good news. The Advanced Class IV skim becomes the mover whenever the cheese market is weak and this generally is associated with lower butter prices and low farm milk prices. Recall the milk prices at the farm level received during 2002 through July of 2003. The Class III price averaged only \$10.33 per hundredweight during this period. Let's hope we are not headed too far in that direction!

Dairy product inventories can flatten milk prices

I have included two charts, one for Butter, and one for Cheese, on the last page of this article. The Butter and Cheese charts show the relationship between product inventories, production, and high or low milk prices. In each chart I have plotted the ratio of dairy product stocks to dairy product production by month, averaged for the three high price years (1999, 2001, 2004), the three low price years (2000, 2002, 2003). The price forecast chart is shown directly below these two charts.

The first chart shows the Butter stocks to production ratio (BSPR) and where we are sitting at the present time. The seasonal pattern is obvious. Stocks tend to rise during the first half of the year as cream is flush and butter production is full throttle. In the second half of the year, when cream is less available, stocks are drawn down relative to butter production. What is also apparent and very important for our outlook on the butter price is the relative position of each of the charted lines. High milk price years need high butter prices. High butter prices have been associated with a moderate to low BSPR. Now look at where we are sitting at the end of 2005. The BSPR is 0.557 to 1. This is higher than we have observed this time of the year for the 'high-price' years but much lower than that observed during the 'low-price' years. This suggests that we will not see wholesale butter price move below the \$1.40 level in the coming months unless something happens to limit commercial demand or further advance milk production.

The second chart on shows the Cheese stocks to production ratio (CSPR) and where we are sitting at the present time. As with butter, the seasonal pattern is there but not as obvious. Stocks relative to production tend to rise during the November – February, and then again

during the March to July period. In the second half of the year, when farm level protein tests fall, the cheese industry pulls from stocks to satisfy demand and stocks are drawn down relative to cheese production. Higher average cheese prices require a moderate to low CSPR. Now look at where we are sitting as we start 2006. At a ratio of 0.94 to 1, the CSPR is running below what we would normally expect this time of the year and indeed what we have experienced during high price years. With continuing strong commercial demand we can anticipate that the wholesale cheese price will not decline much below the \$1.30 level. While this seems low when viewed in the light of the past 18 months, remember that the last time we experienced a strong surge in milk production cheese price retreated to support levels of \$1.10 - \$1.15 and stayed there for many months.

Let’s take a look at what is ahead for milk prices

With milk cow numbers increasing, dairy slaughter low and the specter of energy prices siphoning disposable income from the consumer pocketbook, we can anticipate a drop in milk prices over the next 12 months. However, *if* we can keep a balance between commodity stocks and production the decline will be gradual and not wrenching. My long-term forecast for 2006 is based on this assumption and shown in Table 1. These forecast prices translate into a Class III milk price of \$13.10 for 2006. For those producers who participate in the Federal Order 33 pricing program, you can add an additional \$0.30 to \$0.40 per hundredweight to this price to arrive at an estimate of their mailbox price. For 2006 this is a range of \$13.40 to \$13.50 per cwt. It remains to be seen what impact the Cooperative Working Together CWT program will have on these forecasts. CWT has reported that the program removed 64,069 cows over the November – December 2005 period. According to National Milk Producers Federation this represents a production capacity of 1.2 billion pounds of milk annual rate. Perhaps more important at this point is the export subsidy program. The trigger price for cheese and butter is \$1.40 and \$1.30 per pound respectively. CWT has extended this to include more cheese types and butter. Let’s hope that these measures have the intended impact in the coming months. I strongly suspect they will not be sufficient to limit the fall in the milk price as we move into 2006.

Table 1. Price Forecast for 2006 by Quarter.

	Butterfat	Protein	Other Solids	Nonfat Solids	Class 3 Price
Qrt I	\$1.4869	\$2.2652	\$0.1750	\$0.8303	\$12.9765
Qrt II	\$1.5720	\$2.0251	\$0.1770	\$0.8082	\$12.5677
Qrt III	\$1.6240	\$2.2801	\$0.1693	\$0.8204	\$13.4687
Qrt IV	\$1.6089	\$2.3066	\$0.1681	\$0.8342	\$13.3771
Ann.Avg	\$1.5700	\$2.2134	\$0.1723	\$0.8237	\$13.0975

If you would like to follow my projections for the milk and dairy product markets you can do so by accessing my Ohio Dairy 2005 website at this address:

<http://aede.osu.edu/programs/ohiodairy/>.

World Dairy Situation & Outlook

The following summarization of the world market situation is taken directly from “Dairy: World Markets and Trade”, Circular Series, FD 2-05, December 2005, Foreign Agricultural Service, USDA.

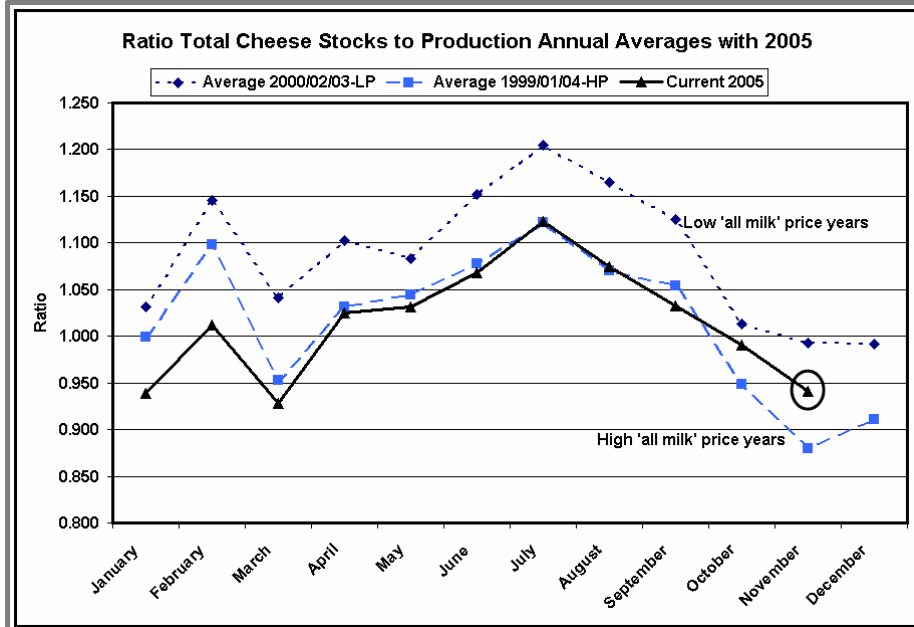
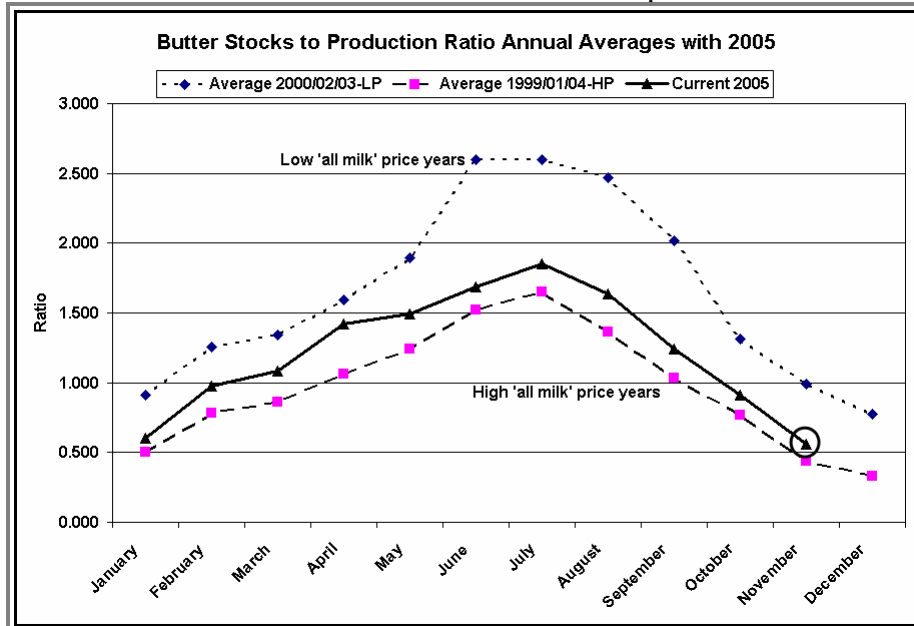
Summary - The remarkable strength of the international dairy markets continues, however, there are signs that demand has eased slightly and prices are likely to moderate in the next several months. Nevertheless, supplies will likely remain tight particularly since the anticipated jump in Oceania production is not expected to materialize as a result of adverse milk producing weather in New Zealand. Consequently, although Australian milk production for the 2005/06 season is forecast to expand, this is likely to be offset by production shortfalls in New Zealand, absent a late season recovery. As a result, Oceania milk output is currently forecast to remain largely unchanged from last season. In the EU-25, milk production for 2006 is set to increase marginally, but strong internal consumption for dairy products will absorb additional production and thus exportable supplies will probably be similar to 2005. In contrast, U.S. milk production for 2006, following a year in which milk output surged by 3.5 percent, is expected to expand at a more moderate pace to 2.6 percent. While this will ensure that there are ample exportable supplies of nonfat dry milk (NDM), global markets for other dairy products are unlikely to be affected significantly since U.S. exports of cheese, butterfat, and whole milk powder are not as competitive.

World Demand - From an economic perspective, import demand for 2006 should remain fairly steady as global growth in gross domestic product (GDP) is projected to exceed 3 percent annually.

Value of the Dollar - A further complicating factor is the role of currencies. The high world prices coupled with a weak U.S. dollar have provided U.S. dairy exporters with a competitive edge while at the same time diluting export returns to competing producers. In recent months, the value of the U.S. dollar relative to the Euro has been strengthening, effectively exerting downward pressure on EU dairy export prices. Currently, the U.S. dollar is projected to continue strengthening against the Euro in 2006, undermining the competitiveness of the U.S. dairy industry.

Skim Milk Powder - NDM prices are currently trading in the range of \$2,125-\$2,250 FOB N. Europe and may remain in that range despite downward pressure from an appreciating dollar. For the next 6 months, while NDM prices may slide due to currency movements, and assuming that current production parameters (particularly with respect to New Zealand) apply, then NDM market prices should remain historically strong as supplies remain relatively limited. The global markets for WMP have paralleled the trends in the NDM markets. Currently, prices are high in the range of \$2,200-\$2,275/MT FOB.

Charts 1-2. Total U.S. butter & cheese stocks production ratios.



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