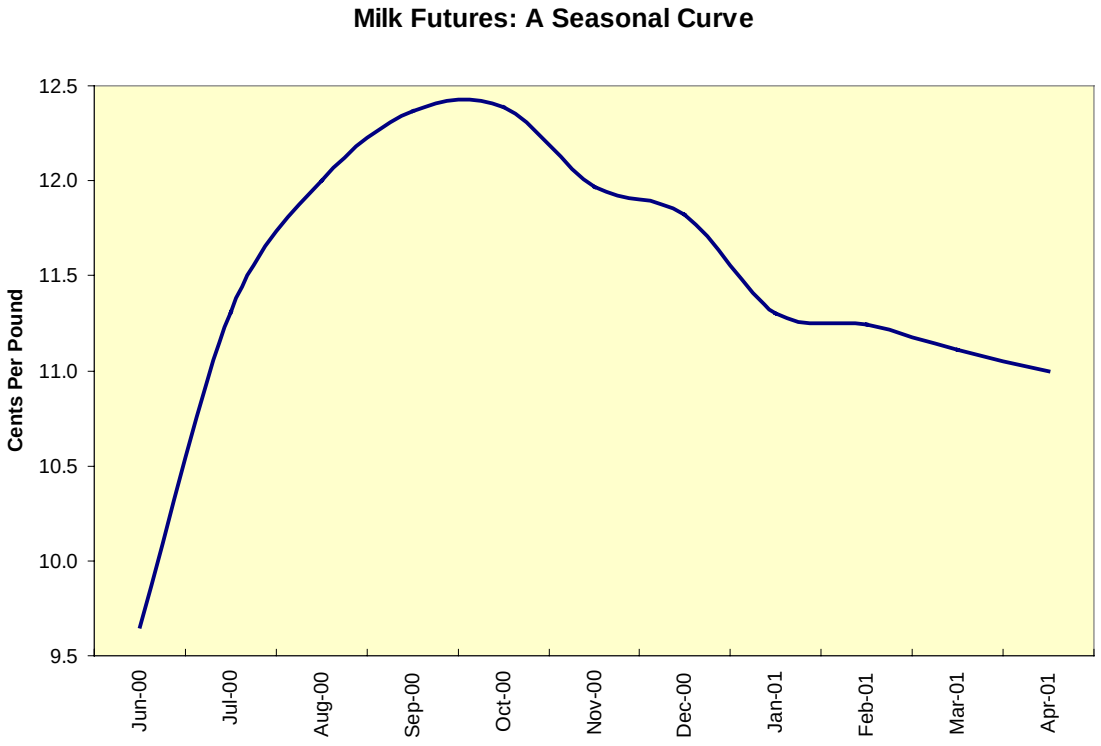
Thin May Be In, But Fat's Where It's At

Milk is the first commodity of which most of us are aware -- and at the time, we wouldn't trade it for anything. After a while, it occupies a less-central role in our lives in a liquid form, but it continues to play a huge role in our diets in the form of cheese and butter. The vision of life without pizza and ice cream is post-apocalyptic in its horror, and without cheese steaks, what purpose, if any, would Philadelphia actually serve?

These dairy products serve, if unintentionally, an important economic purpose. One of the social benefits of futures markets is modulation of price swings produced by the natural mismatching of production and consumption cycles. However, this requires good storage characteristics, and fluid milk, as most of us have discovered the hard way, does not store indefinitely. In addition, milk production cannot be responsive, up or down, to short-term oscillations in price. As a result, the forward curve of milk prices resembles neither the classic upward-sloping shape of a commodity stored by its final consumers nor the backwardated (inverted) shape of a commodity whose storage costs are borne largely by producers. The structure of milk futures' forward curve resembles, incredibly, the forward curve of electricity prices more than that of any other commodity. Both are best-guess affairs dominated by seasonal assumptions and subject to impressive price spikes when the guesses prove wrong (Hint: this happens frequently).

A snapshot of the Chicago Mercantile Exchange's milk futures contract taken at the close of business on Friday, June 9, 2000 can be interpreted thus: At present, milk supplies are abundant, and prices are collapsing moving into delivery. The oversupply situation should be corrected by early autumn, after which dairy producers' price anxiety and need to protect their revenue starts to depress prices. Nothing here is either sending a signal to dairy farmers to cut future production or to milk consumers to lock in low future prices at present levels.

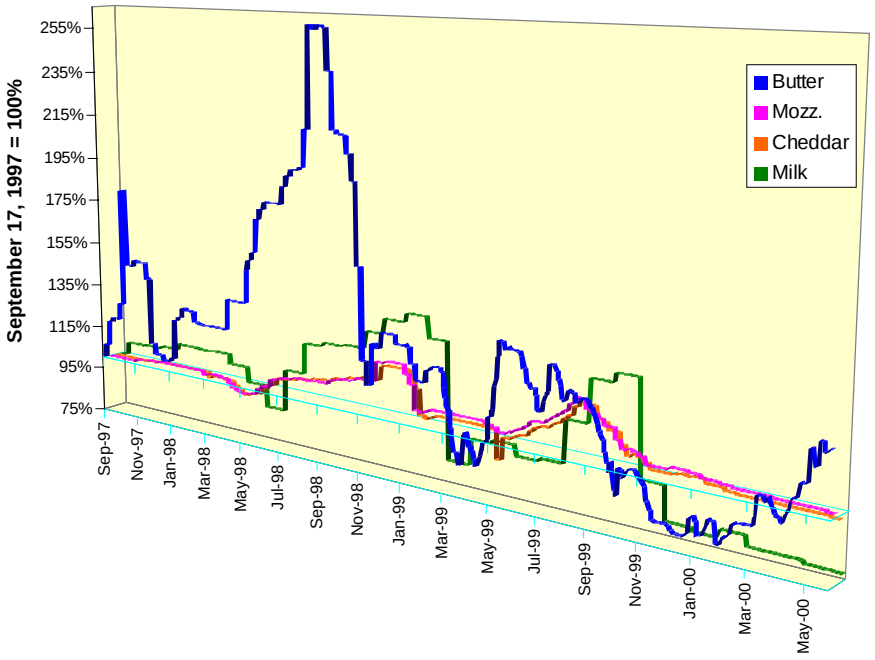


Butter: The First Derivative

It's time, once again, to link commodity and equity prices. Remember El Niño? Amongst its other effects in 1998, the phenomenon led to increased rainfall in West Coast dairy regions, which led to lower milk production and lower butterfat content therein. While whole milk prices didn't shoot higher, butter prices started to behave like an out-of-the money call option on a skyrocketing stock. Within a year, cash butter jumped more than 250%. The subsequent decline in butter prices was even sharper; within two months, the price more than fell in half.

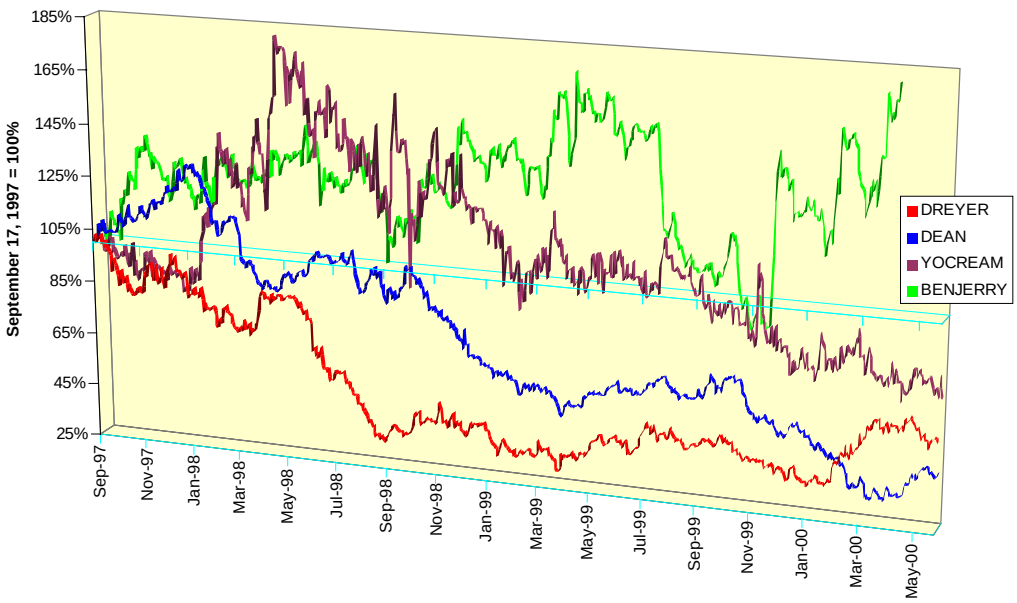
Cheese prices, represented below by both cheddar and mozzarella, were actually less volatile than milk prices. The extraordinary correlation between cheddar and mozzarella and their low volatility relative to milk and butter suggests, um, certain inefficiencies in this market. Tricon Global Restaurants, the parent company of Pizza Hut, is the largest consumer of cheese in the country; its shares rose steadily on both an absolute and relative basis well into 1999.

Relative Price Movement Of Dairy Products



Since butterfat is a feedstock for ice cream, these firms should, all else held equal, have an inverse relationship to butter prices. Some of the better-known "pure" ice creams plays include Dreyer's Grand Ice Cream, Yocream, and, until its recent takeover offer from Unilever, Ben & Jerry's Homemade. Let's add Dean Foods, a major ice cream producer that recently integrated vertically by purchasing the Midwestern dairy operations of the Land O' Lakes cooperative, to this group as well. How did these firms ride out the butter rollercoaster, and given the 53% jump in butter prices since mid-February, how should these and other heavy users of butter fare going forward?

Ice Cream Manufacturer Performance Relative To S&P 500



The data are somewhat non-conclusive. Ben & Jerry's, whose post-takeover prices are not displayed, took a modest hit during the butter price spike, but afterwards marched to the beat of its own tie-dyed drummer. Dreyer's fell sharply relative to the S&P right at the start of the butter price jump and didn't even start to recover until mid-February of 2000, the very time when butter prices started to rise again. Yocream started to underperform at the same time, fell steadily, and has drifted relatively lower ever since that time. Dean Foods' relative performance has been more positively, not negatively, correlated to butter prices, even before its Land O' Lakes purchase.

Risk Management: It's Not Just Trading Anymore

While the above data suggest it is difficult for an equity investor to identify and trade developments in dairy markets, they also confirm a very old truism about commodity price volatility: One of the best risk management techniques is strategic acquisition and divestiture, or vertical integration. It is far more efficient than active risk management and commodity trading, especially in a relatively illiquid market such as butter. If a Dean Foods manages its feedstock costs strategically and a Yocream, for example, does not, then which firm should outperform over time?

Strategic risk management takes time and management patience, the latter often cited as an oxymoron. If one subsidiary gains, the other loses, and that is as much fun as watching half of your diversified stock portfolio sink on any given day. Still, it's the right way to go, and we'll be citing other examples as we advance in this series.