# Dairy Policy Brief #9c: Federal Milk Marketing Orders—Pricing

## *What is the Program?*

Federal orders set minimum class prices using a set of formulas. For Class III and Class IV prices, formulas link milk component values directly to wholesale prices for the major dairy products within the classes. For example, the Class III (and Class IV) butterfat formula derives a butterfat price by subtracting a make allowance (assumed manufacturing margin) from the wholesale price of butter and multiplying the difference by the assumed yield of butter per pound of butterfat. Protein, nonfat solids, and other solids prices are derived in a similar manner, with the values of these components linked to wholesale prices for cheese/butter, nonfat dry milk, and dry whey, respectively. The Class III and Class IV prices per hundredweight are calculated by multiplying component prices by the pounds of component assumed to be contained in a "standard" hundredweight of milk.

Class I and Class II federal order milk prices are not tied to the wholesale prices of Class I and Class II dairy products. Rather, these prices are set by adding a differential to advanced Class III and Class IV prices. Consequently, prices for all classes of milk are related directly to wholesale prices for butter, cheese, dry whey, and nonfat dry milk.

## *What are the issues?*

- **Product price formulas.** The product price formulas for Class III and Class IV contain values for manufacturing costs and yields that are based on historical industry experience. Costs and yields vary among plants, raising the question of where to draw the line—should the values assure profitability for all plants? Only the most efficient plants? The formula values can become outdated over time, leading to abnormally high or low plant operating revenue. This is a particularly serious problem for make allowances. For example, rapidly rising fuel and energy prices in 2005 and 2006 elevated manufacturing costs increasingly above the formula make allowances. But raising product prices in an attempt to offset higher costs translates directly into higher milk costs through the Class III and Class IV formulas, leaving manufacturers no better off. And altering make allowances requires a lengthy administrative process during which conditions could change radically. Product price formulas rely on wholesale prices for dairy products that are collected and reported by USDA's National Agricultural Statistics Service (NASS). While reporting is mandatory, NASS only requires reporting of prices for "spot market" sales, which represent less than 20 percent of butter production and less than 40 percent of cheese production. Moreover, because prices for most butter and cheese transactions are pegged to the thinly-traded Chicago Mercantile Exchange markets, even spot market sales prices may not consistently reflect broad supply and demand conditions.

- **Class I prices.** Minimum Class II, III and IV prices are the same across all orders. But while the base is the same, minimum Class I prices differ because Class I differentials vary across markets. The spread in Class I differentials (measured at principal consumption sites) is from $1.80 to $4.30 per hundredweight. Class I differentials are positively correlated with Class I utilization and, for markets east of the Rocky Mountains, distance from the Upper Midwest. The logic for these differences was to encourage local self-sufficiency in fluid milk to avoid costly shipments of inferior milk to meet deficit needs. But with rapid transportation and modern packaging technologies, packaged milk can economically move long distances with little or no deterioration in quality. Therefore, the need for widely-varying Class I prices is questionable and may be contributing to the inefficient location of milk production.