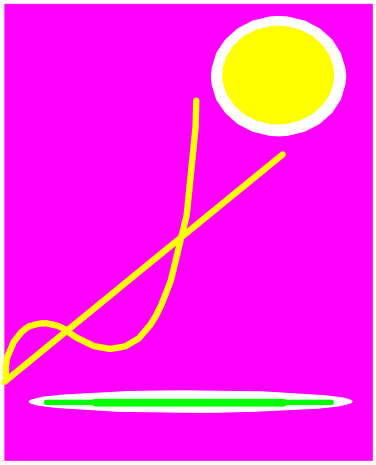

Food Marketing Policy

Issue Paper

No. 29 December 2002

A Fair Share Law for Connecticut and Other Northeast Dairy States: A State Level Solution to Retail Milk Price Gouging and the Dairy Farm Crisis

by

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An updated and expanded version of the Fair Share economic model that is presented in this paper is now available in a paper by R.W. Cotterill and A.N. Rabinowitz, "Analysis of Two Related Milk Price Approaches to Address the Noncompetitive Pricing Problem in the Milk Industry: The 40-40 Consumer Approach and the Farmer and Consumer Fair Share Approach," dated January 10, 2003.

The Situation

Price gouging is commonly perceived to be a consumer issue, however it also is a farmer issue. Currently, retail fluid milk prices in New England are as much as a dollar per gallon above supply costs (Cotterill et al. 2002; Mohl 2002). Yes, consumers are paying too much; but farmers are also receiving too little. They are experiencing the lowest milk prices in 25 years.

Similar problems have persisted in the Northeast dairy industry for at least a decade. In 1991 the New York State Legislature passed two laws that aim to redress the pricing power imbalance that farmers and consumers face. We will discuss and compare those laws to the law proposed here. In New England, but for the Dairy Compact era (1997-2001), there is little relationship between raw farm level and retail consumer level fluid milk prices (Wang et al. 2001, Cotterill and Franklin 2001, Cotterill et al. 2002). It is especially true that when the raw fluid milk price has dropped, retail prices have not fallen in a commensurate fashion.

High retail prices reduce the amount of milk that consumers purchase and, because demand is inelastic, increase every consumer's milk bill.[1] Low prices to dairy farmers exploit their need to generate cash flow to cover debt, and their strong bond to the land and their agricultural communities. The trend is well known. Many New England and New York dairy farmers are caught in an economic downdraft. They produce at a loss for years, depleting their assets in land, buildings, equipment and human capital. Ultimately they give up. The land goes for development or back to woods. The character of communities and the natural environment is transformed.

The national dairy situation is contributing to this rural transformation. In the West with federally subsidized water and irrigated crops, dairy farming is expanding rapidly in a radical new form. Over resistance from local environmental groups, dairies with as many as 14,000 cows are being built in Tulare County California. Environmentalists wanted such milk factories to be regulated as industrial firms, effectively losing their agricultural exemption to clean air and clean water laws. To date they have failed.

Between 2000 and 2001, California and Idaho added 89,000 cows to their farms to obtain a total of 1.956 million cows (USDA, Table 1). New England has only 256,000 cows and lost 7,000 during the same time period. Connecticut has 25,000 cows and lost 2,000 cows between 2000 and 2001. Moreover, those were good years for New England farmers because farm prices were above the cost of production – a result primarily due to the operation of the Northeast Dairy Compact during those years.

If one ignores the environmental and human external costs, as the current market system does, Western milk factories can produce milk much cheaper than a New England or New York family dairy farm can. Consequently, they are supplying the national milk market at prices so low that they wipe out the federal safety net for New England and New York dairy farmers. The only exception to this is the Milk Income Loss Contract program that New England Congressmen were able to establish for all small dairy farmers in the 2002 Federal Farm Bill. Here we focus on the core federal policies that affect market prices.

[1] Research indicates that a 10 percent increase in the price of milk leads to a 6.2 percent decline in gallons purchased but a 3.2 percent increase in the consumer milk bill at Boston area supermarkets (Cotterill and

The national price structure for the determination of raw fluid milk prices has always set a minimum price that fluid processors and manufacturers of cheese, butter and other dairy products must pay farmers. With the on going structural shift to milk factories, the federal minimum prices for the Northeast tends to fall below the region's cost of production. The safety net is too low. This means that our region's milk prices should move above the federal minimum as processors pay premiums to attract milk.

This sounds like a market driven agriculture. It is, however, the fluid milk marketing channel is no longer competitively structured. Northeast farmers, especially in New England, now sell to very few processors. Consequently, the premiums are meager and reflect the increased monopsony power of the processors and the big supermarket chains that they sell to who also are power buyers.

This is the situation that we face in New England today. Consumer prices for milk are very high relative to the farm price. Supermarket retailers and processors certainly have the resources to pay farmers the competitive supply price, however they have not done so. They are paying lower prices. Those prices will not drive all farmers that supply milk out of business because even a monopsonist needs to buy product. Buyer power however depresses raw milk prices and transfers income from farmers. It also restricts supply in a fashion that leaves the lion's share of the milk channel's income in the pockets of the processors and retailers. To reiterate, high prices to consumers and low prices to farmers compliment each other because they restrict the amount of milk that flows through the market channel.

To reinforce the claim that market power is being exercised in New England milk markets, consider the evidence from a different angle. Mergers in supermarket retailing

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Franklin 2001, p. 70).

in New England have established or reinforced dominance in many local markets by one of the leading chains. Stop and Shop, Hannafords, Shaws or Big Y have individual market shares above 40% and two firm concentration above 60 percent in many local food retailing markets (Market Scope 2002, Metro Market Studies 2002). Mergers in milk processing over the past 5 years have produced a dominant fluid processor, Dean Foods with 64 percent of the New England market and close to 80 percent of the Boston Providence market. To obtain dominance Dean acquired and shutdown Cumberland Farms, New England Dairies, and Nature's Best. It also acquired and operates West Lynn Creameries and Grants. Hood is a distant number two with 20% share, but the top two firms have 84% of the New England milk processing market. Guida, New Britain, CT (6.6%); Weeks-Crowley, Concord, NH (2.3%), and Oakhurst, Portland, ME (7.5%), are the only other processors left (Cotterill and Franklin 2001 p. 48).[2] Now Hood seeks to acquire Weeks-Crowley, a component of the larger acquisition of National Dairy Holdings.

In virtually all of these mergers, the firms declared that economies of scale and scope would reduce operating costs. For example, the President and CEO of Royal Ahold-USA, the firm that merged Edwards into Stop and Shop in 1996, states that their mergers generate "synergies," i.e. economies of scale and scope. When arguing for the right to acquire Pathmark Supermarkets in 1999, a merger that was stopped, he stated:

> We have gained quite a lot of experience in generating synergies following our other successful acquisitions. We have shown this recently after the fourth quarter 1998 acquisition of Giant-Landover and earlier in 1996 with Ahold's acquisition of Stop & Shop. (Royal Ahold Press Release, as cited in Cotterill, 1999).

[2] This statement discounts several small local and farm-based processing firms which in total have less than 3 percent of the New England market.

The same use of synergies and scale economies has surfaced in reviews of milk processing mergers. After closing many large milk plants in New England, Dean Foods now processes milk in one of the largest milk plants in the world in Franklin, Massachusetts. Virtually all of the fluid milk that it sells in grocery stores in Boston, Providence, and Connecticut comes from that super plant.

Processors and retailers have also claimed that the cost savings from their large scale operations would be passed on to consumers because they claimed that the effected markets would remain intensely competitive. This simply has not happened (Cotterill, 1999 page 6; Cotterill et al. 1999). For milk, the number one product in the supermarket, this means that the farm-retail price spread is wider than ever (Cotterill and Franklin 2001, Cotterill et al.2002, Mohl 2002).

In conclusion, a completely new approach, an approach that is local not national, seems needed to supplement federal policy initiatives. What New England and New York needs is a mechanism in the dairy market channel that 1) reduces retail prices, 2) raises farm raw milk prices, and 3) does so in a fashion that does not destroy the firms ability to earn at least competitive profits so that they can continue to serve farmers and consumers. One can call this the fair share approach. A publicly chartered commission will define the public interest and determine a fair income share for farmers, a fair price for consumers and a fair profit for processors and retailers.

The Core Concept of the Fair Share Approach

The easiest way to explain the proposed policy is to illustrate it with some numbers. Understand that a key feature of the policy is that policy makers can change policy parameters to achieve any target or desired outcome. The core rule is as follows:

When the supermarket price of milk rises above 1.96 times the raw fluid milk price, the supermarket operators will be required to pay 50% of the price increase beyond that trigger price to farmers. This rule benefits consumers because it cuts the benefit to supermarkets from price elevation in half when prices are above the trigger price. In economic terms it doubles the supermarkets' price elasticity of demand. This forces a profit-maximizing firm to a lower retail price level if it initially priced above the trigger price. For the economically inclined, Figure 1 illustrates this point.

An example in Table 1 illustrates the impact of the Fair Share Approach. All prices are per gallon.

Table 1. An Example of the Fair Share Law's Impact

Average Farm Raw Fluid Price	=	$1.14
Average Lowest Supermarket Price Before Law	=	$2.92
Law's Trigger Price	=	$2.23
Average Lowest Supermarket Price After Law*	=	$2.73
Payment to Farmers	=	$0.25
Net Farmer Price After Law	=	$1.39

*Reduction is due to the doubling of the own price elasticity.

Before the law, farmers receive $1.14 per gallon and consumers pay $2.92 per gallon. These prices are averages for the four types of milk: whole at 3.25% butterfat, 2%, 1% and skim. Raw prices are for Hartford for January. Retail prices are from our November survey for Connecticut. After implementation of the law, supermarket operators cut retail price to $2.73. Consumers save 19 cents. Farmers receive an additional 25 cents so their price increases to $1.39 per gallon. The retail-farm price spread decreases from $1.78 to $1.34 per gallon. Again, we stress that this is an example,

not a prediction of what would happen with the law. What actually happens depends on actual market conditions, the level of the policy parameters and the actual elasticity of demand.

Analysis of the Fair Share Approach

Figure 2 provides a graphic illustration of the redistribution of channel income. The fair share rule can reduce consumer prices, elevate farm prices, and thus reduce the farm-retail spread. The exact quantitative impact depends on only two policy parameters: the trigger price, and the percent share of revenues above the trigger price that is returned to farmers. One can set the trigger price low enough so that supermarkets price above it and return money to farmers. The firm's own price elasticity of demand is also a critical parameter, but it is not under the control of policy makers.

The fair share approach, in effect gives a state the ability to return money to farmers that sell fluid milk in the state. Fair share payments can be pooled and paid as a uniform premium to all farmers. One would need a commission and staff to operate the program, but it can be self funded. This law is not a hidden tax increase, nor need it add to state employment. The law only redistributes monetary benefits among players in the milk marketing channel.

The fair share law links consumers in the major urban areas with farmers in rural New England and New York. By cooperating to establish this law both benefit. If all New England states and New York passed this type of law, one could have a regional mosaic of state policies that benefit consumers and farmers. Perhaps the states could use a common staff to analyze markets and advise on how to set the policy's trigger

price and share ratio. This could create some uniformity in the administration of the state level programs.

Payment to farmers is written into the fair share law; but, how can we be sure that retailers cut the price to consumers? Are the economics in Figure 1 really that powerful? The answer is yes they are. The higher the share ratio is, the more likely retailers will cut price. In fact if the share ratio is 100%, then farmers get all of the price increase in our example over $2.23. The trigger price effectively becomes a price ceiling.

A 100% share ratio sounds like the best farmers could do, but actually it is as bad as a zero percent share ratio. Consumers benefit handsomely and farmers get nothing. This indicates that there is an interior share ratio somewhere between 0% and 100% that provides maximum benefit to farmers.

Note also that the fair share policy with a 100% share ratio morphs into a New York type price gouge law. The difference is that the State of New York law fines violators. Here violators pay farmers the excess of price over the trigger price on quantity sold.

Retailers sell other brands of milk in addition to private label milk. How would the policy cope with this? The fair share rule could apply to lowest priced milk. As the price of that milk drops the price of the competing brands will also drop, benefiting consumers. One can collect the farmer payment calculated for the lowest price brand from the other brands. In other words, when the lowest priced brand moves above the trigger point one begins collecting the farmer payment as determined on that brand from all brands. This does not disadvantage or favor one brand over others.

Should the fair share approach cover all retailers that sell milk? Small retailers and nonfood stores that offer small amounts of milk as a convenience might be exempted. One would include supermarkets, convenience stores, club stores, limited assortment stores and mass merchandisers such as Big Kmart and Wal-Mart. A possible expansion would be milk sold by processors to the hotel, restaurant, school and institutional trade.

One might ask how is the proposed fair share policy different from the Northeast Dairy Compact? The Compact essentially pushed a higher raw milk price on to processors and retailers. It had no direct control over the retail price. This allowed processors and retailers to raise retail prices by more than the Compact's increase in raw milk prices (Cotterill and Franklin 2001, Dhar and Cotterill 2002). The fair share policy is an advance over the Compact because it benefits consumers as well as farmers.

Does one need Congressional authorization for this approach? Probably not, because this is a state law that affects farm and retail prices much like the New York laws that required no federal approval. Also, the U.S. Supreme Court found that the Compact's payments to farmers did not violate the interstate commerce clause. The fair share pooling method is similar to the Compact's. It does not favor farmers in one state over others. Any farmer or cooperative of farmers that supplies raw fluid milk sold in the state's outlets receives payment

How does the fair share approach compare to the New York legislation? In 1991 when faced with a similar situation, very low prices to farmers and high relative-to-farm-price retail prices, New York passed two laws. The first gives the state the authority to mandate that processors pay New York farmers a premium to raise the raw fluid price above the federal minimum price. In return for support of this law, representatives from

the New York City and Long Island area (down state consumers) asked for a price gouging law that limits retail price of at least one brand of milk to no more than twice the farm price. The NYS Department of Agriculture and Markets sets a ceiling price for upstate and a higher one for the metro New York region to reflect increased costs. In November 2002 it was $2.41 for upstate and $2.57 for downstate for a gallon of any type of milk (New York Dept of Ag).

The fair share approach may work better than the New York laws. The New York over-order pricing law can only mandate that processors pay farmers **in the state** an over-order premium. Processors, such as Farmland Dairies, simply went outside of the state to purchase milk and the premium effort failed. That can't happen under the fair share approach, because it is based on retail prices rather than farm prices. The New York price gouging law has not been rigorously enforced because the governor's office has not referred cases investigated by the Department of Agriculture to the state Attorney General. Our research suggests that most but not all firms come in at a price under the relevant ceiling price. In our price checks of 40 New York supermarkets, we found two stores that were above the laws relevant ceiling price.

We conclude that New York consumers have received more benefit from the laws than New York farmers who receive somewhat lower raw milk prices than New England farmers. New York consumers have lower prices than southern New England consumers who pay on average $3.01 per gallon (Cotterill et al. 2002).

Finally, here is an analogy. What the fair share approach does is hitch the farmer's wagon to the retailer's horse. Everybody gets to ride.

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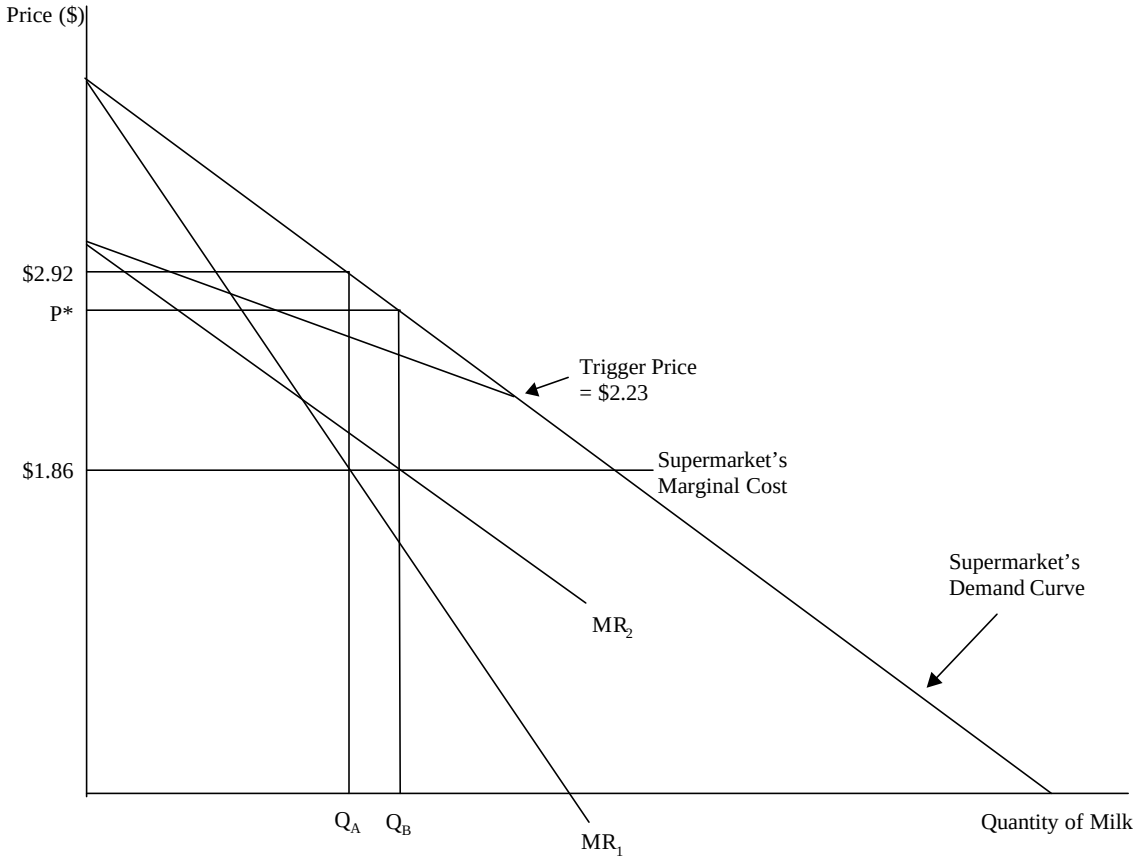
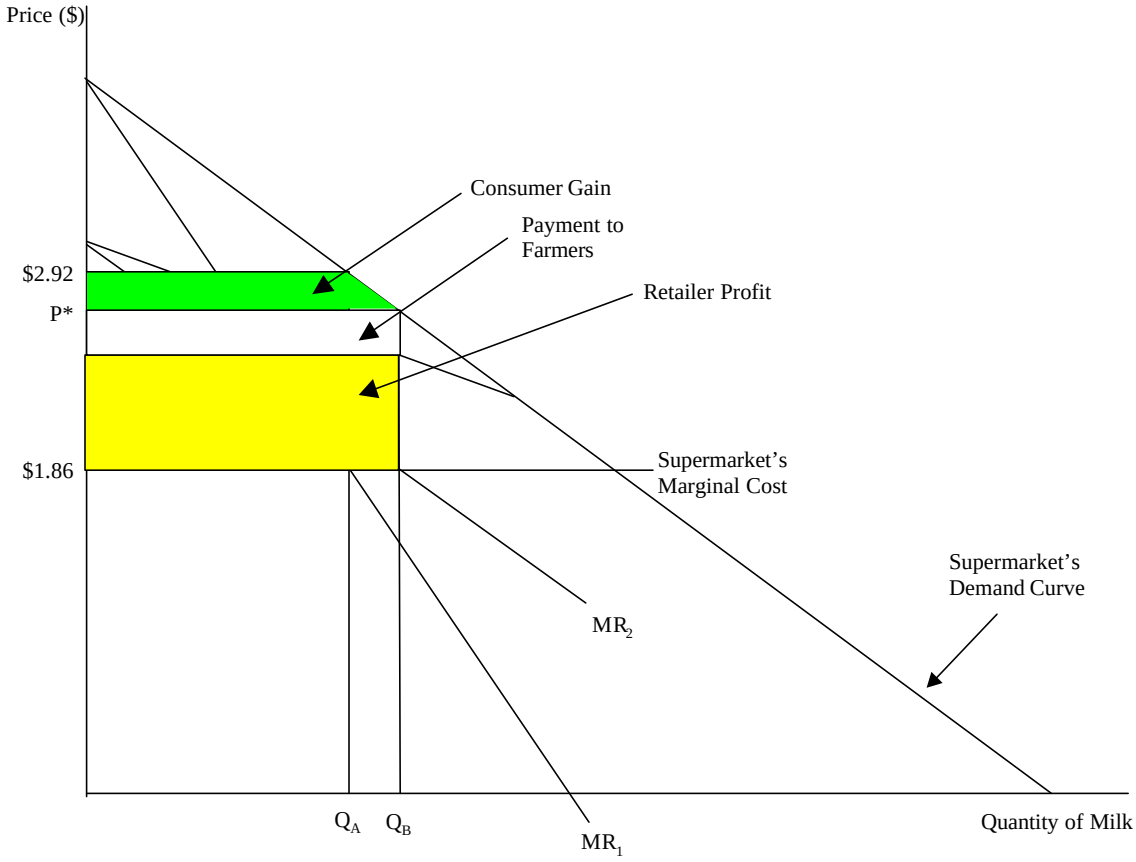
Figure 1: An Illustration of how the Fair Share Policy Reduces Retail Price.



EXPLANATION: We have drawn a linear demand curve for a supermarket's milk. The analysis also holds for nonlinear demand curves. Before the Policy this supermarket maximizes its profits from the sale of milk by selling, Q_A, the quantity that equates marginal revenue, MR_1, to marginal cost. It charges \$2.92 per gallon for Q_A and earns (2.92-1.86=1.06) dollar profit for each gallon sold. Total profits are $\$1.06 \times Q_A$. The trigger price is set at \$2.23 in this example. At prices above this, with a 50% share ratio, the supermarkets demand curve rotates down from the trigger point as drawn. The new flatter demand curve has a new marginal revenue, MR_2. MR_2 equals marginal cost at Q_B. Under the policy the profit maximizing output increases to Q_B and the price drops from \$2.92 to P*. One needs to know the exact demand curve to compute a dollar price. (Note that we have no units on the quantity axis.)

Figure 2: An Illustration of how the Fair Share Policy can Redistribute Milk Channel Income.



EXPLANATION: Before the policy, the retailer charged \$2.92 and sold Q_A gallons of milk. Under the policy, retail price drops to P* and the top shaded area gives the total dollars that consumers save. Note that consumers buy more milk, Q_B, at the lower price. The lower shaded area represents the total dollar profits of the retailer under the policy and the middle rectangle is the payment to farmers.