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The Need for New Milk Pricing Policies

by

Adam N. Rabinowitz and Ronald W. Cotterill

**Invited Testimony before the Connecticut
Legislature Committee on the Environment
February 18, 2009**

**Food Marketing Policy Center
University of Connecticut**

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Presented to the Connecticut Legislature Environment Committee

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The Need for New Milk Pricing Policies

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Good morning. Thank you for inviting us to speak to you today. My name is Adam N. Rabinowitz and I am a Ph.D. Candidate and Graduate Research Assistant in the Food Marketing Policy Center, Department of Agricultural and Resource Economics at the University of Connecticut. Unfortunately, Dr. Ronald W. Cotterill could not be here to speak with you today because he is testifying as an expert economist in a United States Federal Court on issues pertaining to Puerto Rico dairy regulations. Since 2002, Dr. Cotterill and I have done extensive research on milk pricing in southern New England, documenting the relationship between retail, wholesale, and farm prices in the milk marketing channel. Today I am going to discuss milk prices and margins at various levels of the marketing channel as well as the need for a market based pricing policy in Connecticut.

Figure 1 shows the Class 1 fluid milk price in Hartford since 1996. One can see during the Northeast Dairy Compact period of July 1997 to September 2001 the Class 1 price was stable at \$1.46 per gallon. For approximately the next two years, after the Dairy Compact ended, the Class 1 price was about \$1.25 or below, until mid 2004 when there was a spike in prices to about \$2.00 per gallon. After a few months the price stabilized around \$1.50 per gallon during 2005 before dipping below that price during 2006. In 2007 there was an increase in Class 1 prices to about \$2.10 per gallon before starting to trend down during 2008. As of February 2009 the Class 1 price in Hartford is \$1.19 per gallon, the lowest price since July 2003.

Turning our attention to the top line in Figure 1, one can see the retail prices of whole milk from 1996 to 2009 as reported by the USDA Agricultural Marketing Service. Here one sees the retail price increase over time, which persists even when the farm price drops during 2002 and 2003. In 2004 the retail price increased sharply to over \$3.50 per gallon maintaining around \$3.50 or more except for a few months during 2006. Our research had indicated the drop in retail prices during 2006 may have been due to a reporting error. In 2007 retail prices increase to \$3.80-\$4.00 per gallon, with a February 2009 retail price of \$3.82.

The wholesaler or processor is the other participant in the marketing channel beyond the farmer and retailer. To assist us with the analysis of processor margins we have engaged Dairy Technomics, an independent firm that measures the cost of fluid milk processing. Dairy Technomics provides analysis for supermarket buyers and others including the Attorneys General of Connecticut, Massachusetts, and Rhode Island when Stop and Shop closed its milk plant and signed a 20-year full supply contract with Dean Foods/Garelick for their private label milk. In that matter, the Dairy Technomics estimates were far below the estimates provided by the firms but the Dairy Technomics estimates were confirmed by an extensive audit ordered by the state Attorneys General.

In Table 1 we provide the cost of processing and direct store delivery of milk by processors to supermarkets within 120 miles of the plant for processing plants in the Northeast (New England, New York and New Jersey). Costs are for October 2008 with an update for December 2008 due to the drop in fuel and plastic prices. One can see the processors margin for store delivery in October ranged from 77 cents for Garelick Farms (Stop and Shop) and Crowley Foods (in Binghamton) to 87 cents for Guida, Oakhurst, and Byrne Dairy. Note the low Stop and Shop Garelick price due to a 20 year full supply contract with Dean Foods.

Combining the raw milk price and wholesale margins we construct a wholesale price in Figure 2. Here we have October 2008 and February 2009 farm and processor margins for different brands of milk at Stop and Shop, Big Y, and other retailers in Connecticut. In October 2008 the wholesale price paid by Stop and Shop for private label and Garelick milk was \$2.30 per gallon. Big Y secured Guida and private label milk for a wholesale price of \$2.40 per gallon. The wholesale price for other retailers in Connecticut and for all Hood retailers was \$2.38 per gallon. In February 2009, with the Class 1 price dropping to a 6 year low and fuel and plastic prices declining, the Stop and Shop wholesale price for private label and Garelick milk was \$1.94 per gallon, 36 cents less than four months prior. Wholesale prices for Guida and private label milk purchased by Big Y was \$2.00 per gallon, 40 cents cheaper than October. All other retailers secured private label, Garelick, and Hood for \$2.02 per gallon, a decline of 36 cents.

Although we have not recently collected retail prices, we can use the USDA Hartford retail price as an example of retail margins. In October 2008 the USDA reported a retail price of \$3.88. In February 2009 the price dropped only 6 cents to \$3.82. This would indicate retail margins of approximately \$1.50 in October and \$1.80 in February. We suggest that parties interested in this issue collect local retail prices to see how much retailers are actually earning on milk at this time. Simply subtracting the wholesale price listed in Figure 2 from the local retail price gives the retail dollar margin.

One then questions, what are the in-store handling costs for retailers? In hearings on the Vermont proposed policy, Carl Herbein, on behalf of the International Dairy Foods Association, testified that the in-store cost of selling milk was 51 cents per gallon.¹ This estimate is 13 cents higher than the estimate of 38 cents provided by Dr. George Criner, University of Maine

¹ Statement of Carl D. Herbein, CPA. Submitted to the Vermont Milk Commission Committee Concerning Proposed Order to Establish a Retail Fluid Milk Premium, September 9, 2008. Available at: http://www.idfa.org/news/stories/2008/09/vt_idfa_testimony.pdf

Professor and Director of the School of Economics and primary expert for the Maine Milk Commission.² Regardless of the estimate used, supermarkets are earning profits of at least \$1 to \$1.50 per gallon of milk, and possibly more.

It is a fact that dairy farms and farmland in Connecticut have been in a sharp decline. The only way to arrest this decline is to create a market based pricing policy. Going forward in the current fiscal condition of the state we do not see subsidies from the general fund for dairy farmers as a viable alternative. However, there is money in the marketing channel that can be redistributed to farmers. This is what we mean by a market based policy.

Any Connecticut milk pricing policy must be consistent with similar policies that need to be implemented in the other New England states. The Vermont Milk Commission has introduced such a policy and held extensive hearings.³ Basically, this policy would seek to sustain a farm level target milk price by collecting a fee from retailers in Vermont and paying that fee back to the farmers that supply milk to Vermont retailers. A similar policy should be implemented in Connecticut, Massachusetts and Rhode Island. Then the New England milk shed would receive higher milk prices. The milk shed includes farmers in all of New England and farmers from parts of New York.

In addition to excess retail profits there is another serious problem with milk prices in southern New England. This is Flat milk pricing. Flat milk pricing occurs when a supermarket charges the same price for whole, 2%, 1%, and skim milk. Skim milk costs retailers less than whole milk and in competitive markets retail prices would reflect cost differences. Flat milk pricing is direct evidence of market failure, i.e. large firms setting retail milk prices instead of market forces.

² Vermont Milk Commission Proposed Order to Establish a Retail Fluid Milk Premium. Available at: <http://www.vermontagriculture.com/milkcommission/documents/September92008HearingNotice.pdf>

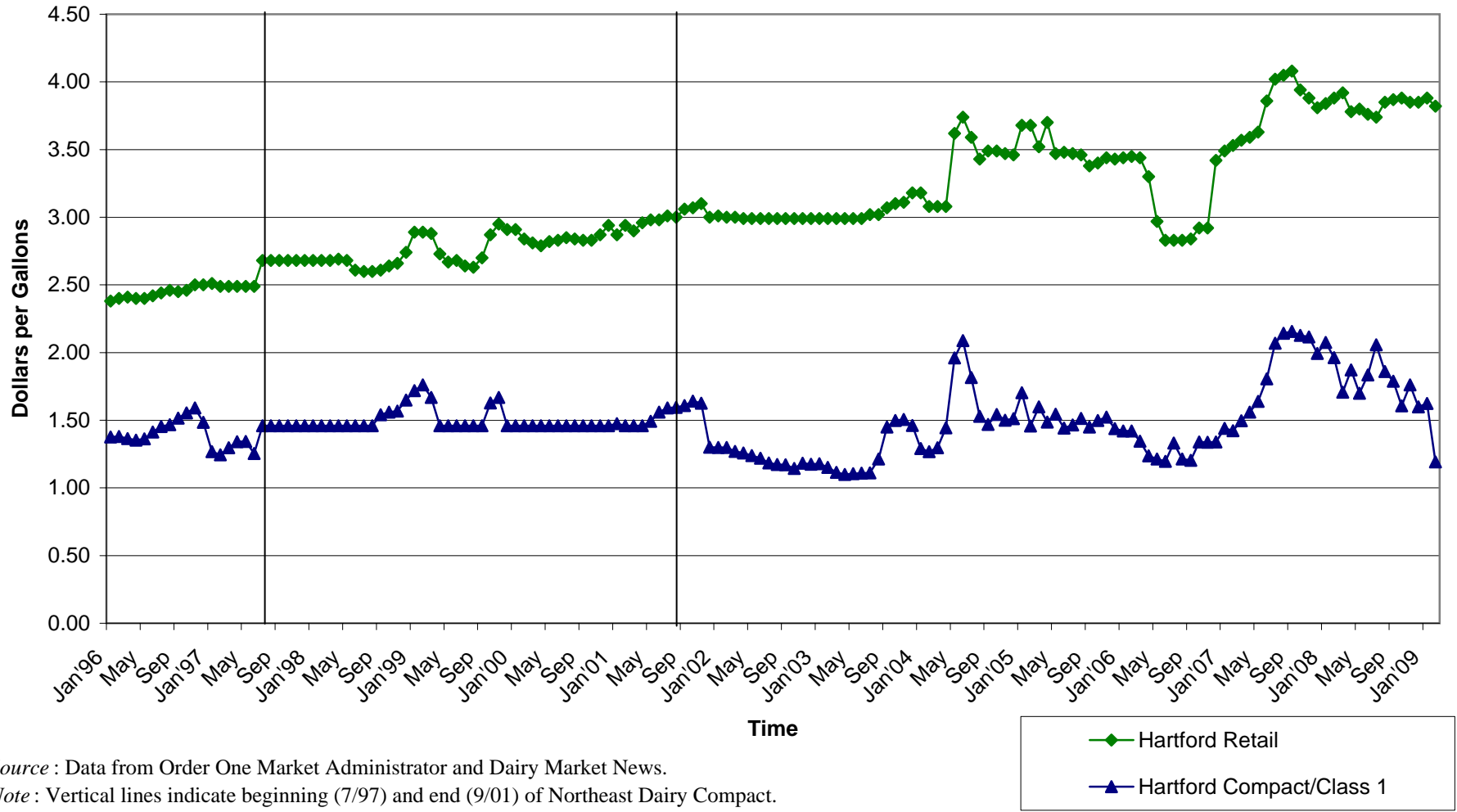
³ See: <http://www.vermontagriculture.com/milkcommission/index.html>

Figure 3 illustrates the raw milk, processor margins, and wholesale prices of different types of milk. In October 2008 there was a 44 cent differential between the wholesale price of whole milk and skim milk. In February 2009 there is a 28 cent differential between whole and skim milk. The decreased differential is due to the greater decrease in the Class 1 butterfat price relative to the decrease in the Class 1 skim price. Table 2 illustrates the problem in southern New England in November 2004 and November 2006. Notice in both surveys we found that Wal-Mart Supercenters were the only retailer that priced milk relative to butterfat content. The only time we found variable pricing with other retailers, such as Stop and Shop and Big Y, was in locations that directly competed with a Wal-Mart Supercenter.

The practice of flat milk pricing means that supermarkets make higher profits on milk with less butterfat since they pay less for such milk. This practice gives no economic incentive for consumers to purchase more healthy low fat milk and therefore contributes to health problems whose costs are borne by society at large and the state as well as individual milk drinkers. Therefore, the Connecticut legislature should also pass legislation that allows the Connecticut Milk Commission to require all retailers to price milk in a fashion that reflects and passes through to consumers the cost of butterfat in milk.

Thank you again for inviting us to speak with you today. Given the short notice to prepare these remarks, we would like the opportunity to supplement or revise our comments in the coming weeks when we will have more time to devote to this issue. In the meantime, I would be happy to answer any questions you may have.

Figure 1. Hartford
Market Level Retail and Farm Fluid Milk Price
January 1996 - February 2009



Source : Data from Order One Market Administrator and Dairy Market News.
Note : Vertical lines indicate beginning (7/97) and end (9/01) of Northeast Dairy Compact.

Table 1. Dairy Technomics Estimate of Non-Milk Processing Costs for October and December 2008

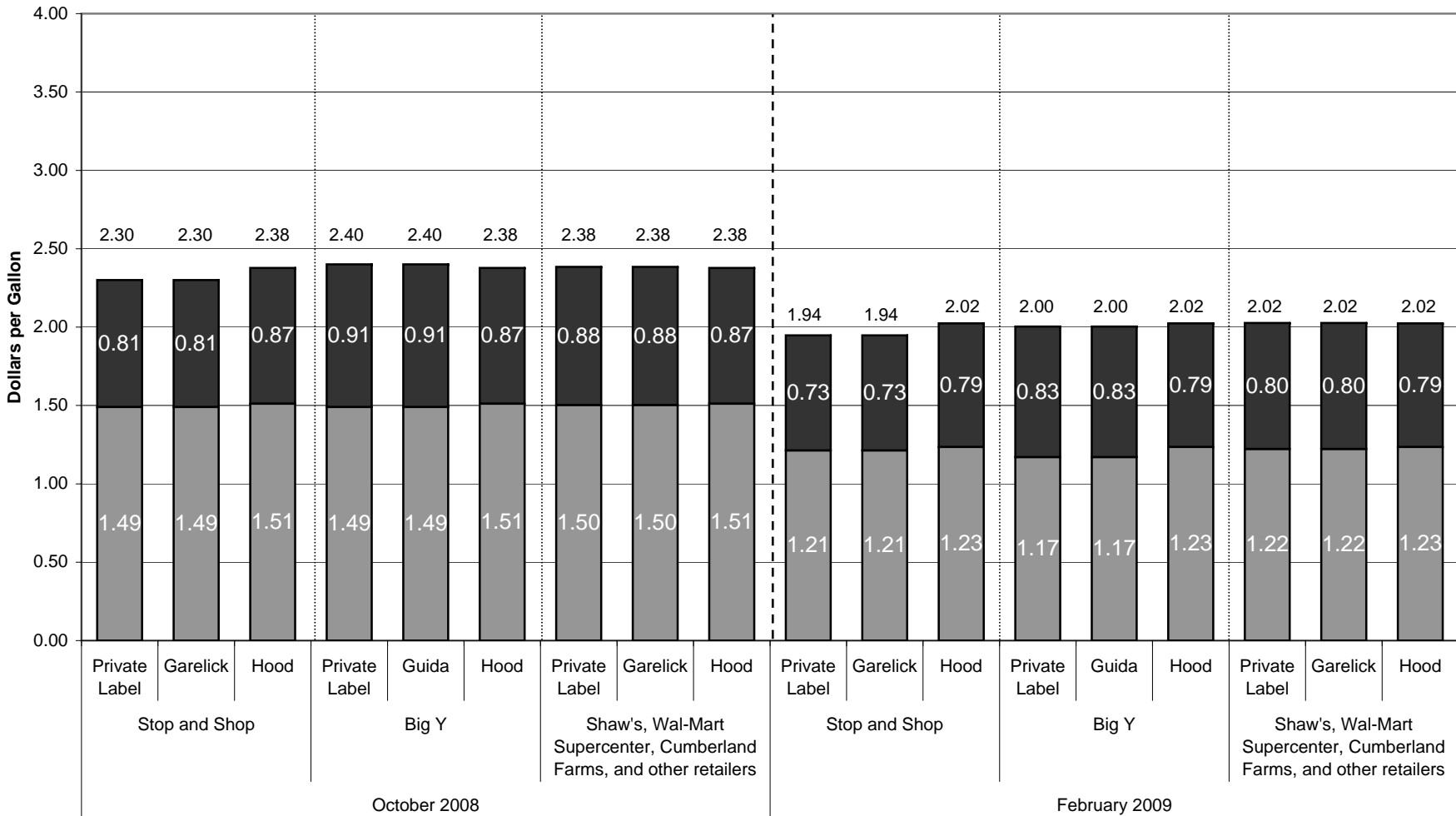
| Dairy Name | FMO | October 2008 Gallon | December 2008 Gallon |
|-------------------------------------|--------------|------------------------|-------------------------|
| Garelick Farms - Chain Store | Northeast MA | \$0.8426 | \$0.7696 |
| Garelick Farms - Stop'n Shop | Northeast MA | \$0.7716 | \$0.6986 |
| Garelick Farms - Warehouse Drop | Northeast MA | \$0.6776 | \$0.6046 |
| Garelick Farms - Rensselaer | Northeast NY | \$0.8177 | \$0.7447 |
| HP Hood - Branded to Chain Store | Northeast MA | \$0.8270 | \$0.7540 |
| HP Hood | Concord, NH | \$0.8432 | \$0.7702 |
| Guida - Seibert Dairy - Chain Store | Northeast CT | \$0.8714 | \$0.7984 |
| Crowley Foods - Albany | Northeast NY | \$0.8261 | \$0.7531 |
| Crowley Foods - Binghamton | Northeast NY | \$0.7691 | \$0.6961 |
| Tuscan - Florance | Northeast NJ | \$0.8315 | \$0.7585 |
| Farmland Wallington | Northeast NJ | \$0.8473 | \$0.7743 |
| Oakhurst - Portland | Northeast ME | \$0.8756 | \$0.8026 |
| Readington Farms - Whitehouse, NJ | Northeast NJ | \$0.8351 | \$0.7621 |
| Byrne Dairy - Syracuse NY | Northeast NY | \$0.8725 | \$0.7995 |
| Oak Tree Oak Port, NY | Northeast NY | \$0.8389 | \$0.7659 |

Costs include packaging, plant, general and administrative, delivery, sales and marketing, and contribution to overhead.

December 2008 Update:

Due to the turbulent times, some of the cost components have changed. For example, resin and fuel. Resin has dropped \$0.38/lb or \$0.053/gallon jug and depending on the type of delivery, fuel has dropped over a \$1.20/gallon or over \$0.02/gallon jug.

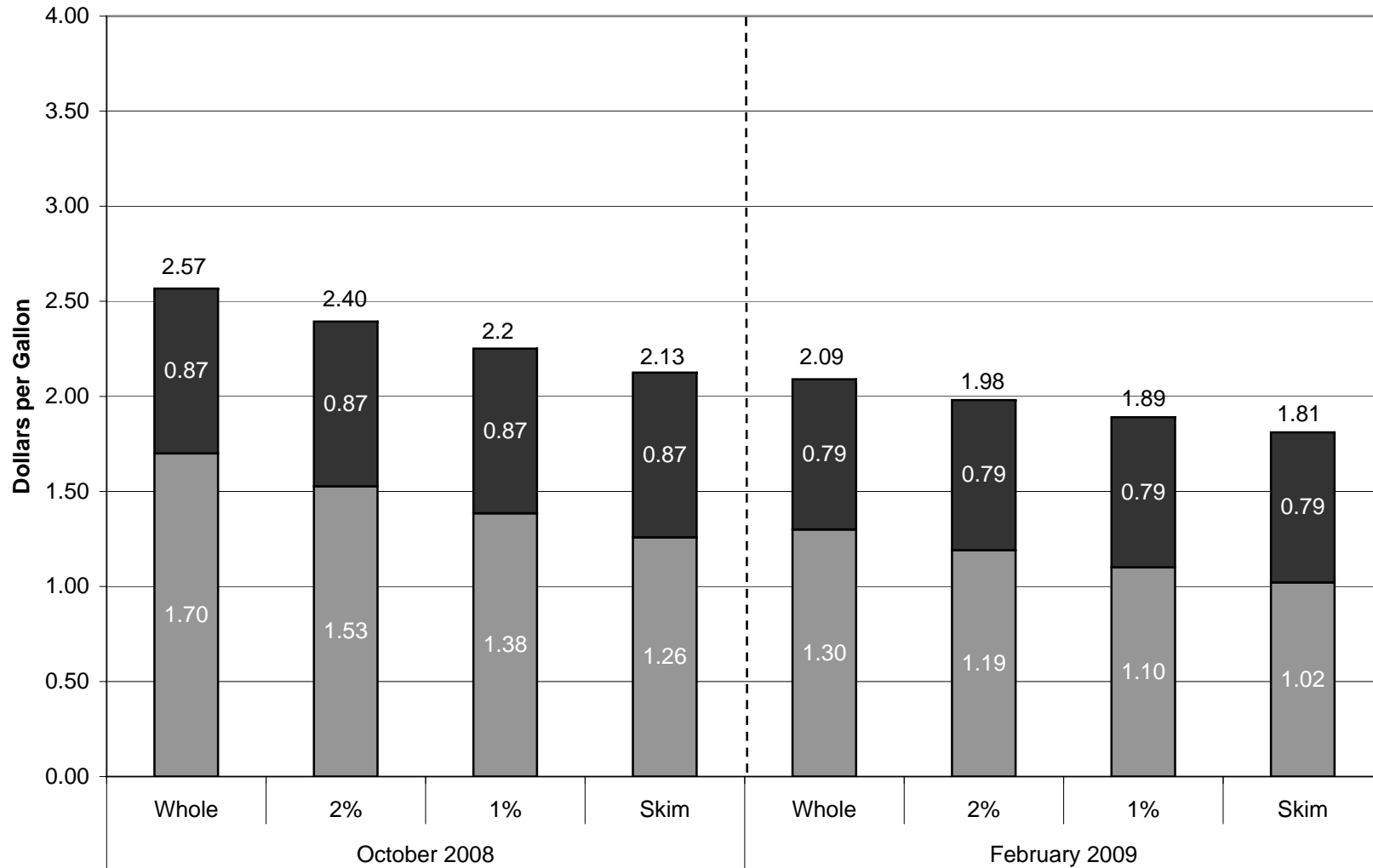
Figure 2. Actual Raw Milk and Estimated Wholesale Prices by Brand for Leading Supermarket Chains in Connecticut: October 2008 and February 2009



Prices are the average across Whole, 2%, 1%, and Skim Milk. Wholesale \$ Margin, from Dairy Technomics, includes Market Administrator Fee, Processor Assessment, and 1% Plant Loss.

■ Raw Milk Price ■ Wholesale \$ Margin

Figure 3. Hartford Class 1 Price plus Federally Announced Coop Premium and Average Wholesale Margin Estimates by Milk Type: October 2008 and February 2009



Average Wholesale \$ Margin, from Dairy Technomics, includes Market Administrator Fee, Processor Assessment, and 1% Plant Loss. This is a simple average of Garelick at Stop & Shop, Garelick at other retailers, Guida, and Hood.

■ Raw Milk Price ■ Average Wholesale \$ Margin

Table 2a. Flat Milk Pricing in Southern New England: November 2006

| Chain | Stores Checked in Southern New England | Brand | Stores with Flat Pricing | Stores with Variable Pricing | Locations with Variable Pricing |
|----------------------|---|---------------|-----------------------------|---------------------------------|--|
| Stop & Shop | 34 | Private Label | 31 | 3 | Norwich, Waterford, and Willimantic, CT |
| | 33 | Garelick | 33 | 0 | |
| | 34 | Hood | 34 | 0 | |
| Shaw's/Star Market | 19 | Private Label | 19 | 0 | |
| | 19 | Garelick | 19 | 0 | |
| | 19 | Hood | 19* | 0 | |
| Big Y | 12 | Private Label | 10 | 2 | Norwich and Waterford, CT |
| | 8 | Guida | 8 | 0 | |
| | 4 | Garelick | 3 | 1 | |
| Wal-Mart Supercenter | 12 | Hood | 11 | 1 | Ware, MA |
| | 5 | Private Label | 0 | 5 | Raynham and Ware, MA and Lisbon, North Windham, and Wallingford, CT |
| | 5 | Garelick | 0 | 5 | |
| | 4 | Hood | 0 | 4 | |

*Shaw's/Star Market in New Bedford, MA had Hood 2% milk priced 4 cents cheaper than Whole, 1%, and Skim.

Table 2b. Flat Milk Pricing in Southern New England: November 2004

| Chain | Stores Checked in Southern New England | Brand | Stores with Flat Pricing | Stores with Variable Pricing | Locations with Variable Pricing | |
|----------------------|---|---------------|-----------------------------|---------------------------------|---------------------------------|---------------------------|
| Stop & Shop | 32 | Private Label | 30 | 2 | Norwich and Waterford, CT | |
| | 32 | Garelick | 31 | 1 | | Norwich, CT |
| | 32 | Hood | 30 | 2 | | Norwich and Waterford, CT |
| Shaw's/Star Market | 18 | Private Label | 18 | 0 | | |
| | 18 | Garelick | 18 | 0 | | |
| | 17 | Hood | 17 | 0 | | |
| Big Y | 12 | Private Label | 11 | 1 | Ware, MA | |
| | 12 | Guida | 11 | 1 | Ware, MA | |
| | 12 | Hood | 11 | 1 | Ware, MA | |
| Wal-Mart Supercenter | 2 | Private Label | 0 | 2 | Ware, MA and Lisbon, CT | |
| | 2 | Garelick | 0 | 2 | | |
| | 2 | Hood | 0 | 2 | | |

Appendix Table 1: Hartford and Boston Retail Milk Prices and Raw Fluid Milk Prices

| January 1996 - February 2009 | | | | | |
|------------------------------|----------------------------|-----------------------|--------------------------|---------------------|-------------------|
| | Hartford Class I & Compact | Hartford Retail Price | Boston Class I & Compact | Boston Retail Price | Boston Coop Price |
| | Per gallon | Per gallon | Per gallon | Per gallon | Per gallon |
| Jan'96 | 1.38 | 2.38 | 1.39 | 2.37 | 1.45 |
| Feb | 1.38 | 2.40 | 1.39 | 2.38 | 1.45 |
| Mar | 1.36 | 2.41 | 1.37 | 2.41 | 1.44 |
| Apr | 1.35 | 2.40 | 1.36 | 2.40 | 1.42 |
| May | 1.36 | 2.40 | 1.37 | 2.39 | 1.43 |
| Jun | 1.41 | 2.42 | 1.40 | 2.41 | 1.47 |
| Jul | 1.45 | 2.44 | 1.46 | 2.43 | 1.53 |
| Aug | 1.47 | 2.46 | 1.48 | 2.38 | 1.54 |
| Sep | 1.52 | 2.45 | 1.52 | 2.39 | 1.59 |
| Oct | 1.55 | 2.46 | 1.56 | 2.43 | 1.63 |
| Nov | 1.59 | 2.50 | 1.60 | 2.45 | 1.66 |
| Dec | 1.49 | 2.50 | 1.49 | 2.41 | 1.59 |
| Jan'97 | 1.27 | 2.51 | 1.28 | 2.42 | 1.37 |
| Feb | 1.25 | 2.49 | 1.25 | 2.45 | 1.35 |
| Mar | 1.30 | 2.49 | 1.31 | 2.45 | 1.40 |
| Apr | 1.34 | 2.49 | 1.35 | 2.45 | 1.42 |
| May | 1.34 | 2.49 | 1.35 | 2.45 | 1.43 |
| Jun | 1.25 | 2.49 | 1.26 | 2.44 | 1.36 |
| Jul | 1.46 | 2.68 | 1.46 | 2.64 | 1.46 |
| Aug | 1.46 | 2.68 | 1.46 | 2.63 | 1.46 |
| Sep | 1.46 | 2.68 | 1.46 | 2.63 | 1.46 |
| Oct | 1.46 | 2.68 | 1.46 | 2.62 | 1.46 |
| Nov | 1.46 | 2.68 | 1.46 | 2.63 | 1.46 |
| Dec | 1.46 | 2.68 | 1.46 | 2.63 | 1.46 |
| Jan'98 | 1.46 | 2.68 | 1.46 | 2.60 | 1.46 |
| Feb | 1.46 | 2.68 | 1.46 | 2.59 | 1.48 |
| Mar | 1.46 | 2.68 | 1.46 | 2.60 | 1.47 |
| Apr | 1.46 | 2.69 | 1.46 | 2.60 | 1.47 |
| May | 1.46 | 2.68 | 1.46 | 2.60 | 1.46 |
| Jun | 1.46 | 2.61 | 1.46 | 2.54 | 1.46 |
| Jul | 1.46 | 2.60 | 1.46 | 2.55 | 1.46 |
| Aug | 1.46 | 2.60 | 1.46 | 2.57 | 1.46 |
| Sep | 1.54 | 2.61 | 1.55 | 2.58 | 1.59 |
| Oct | 1.56 | 2.64 | 1.57 | 2.58 | 1.61 |
| Nov | 1.57 | 2.66 | 1.58 | 2.58 | 1.62 |
| Dec | 1.65 | 2.74 | 1.66 | 2.71 | 1.70 |

(continues)

Appendix Table 1. (continued)

| | January 1996 - February 2009 | | | | |
|--------|------------------------------|-----------------------|--------------------------|---------------------|-------------------|
| | Hartford Class I & Compact | Hartford Retail Price | Boston Class I & Compact | Boston Retail Price | Boston Coop Price |
| | Per gallon | Per gallon | Per gallon | Per gallon | Per gallon |
| Jan'99 | 1.72 | 2.89 | 1.73 | 2.89 | 1.77 |
| Feb | 1.76 | 2.89 | 1.77 | 2.89 | 1.81 |
| Mar | 1.67 | 2.88 | 1.68 | 2.81 | 1.72 |
| Apr | 1.46 | 2.73 | 1.46 | 2.67 | 1.46 |
| May | 1.46 | 2.67 | 1.46 | 2.72 | 1.46 |
| Jun | 1.46 | 2.68 | 1.46 | 2.72 | 1.46 |
| Jul | 1.46 | 2.64 | 1.46 | 2.72 | 1.46 |
| Aug | 1.46 | 2.63 | 1.46 | 2.64 | 1.46 |
| Sep | 1.46 | 2.70 | 1.46 | 2.66 | 1.49 |
| Oct | 1.63 | 2.87 | 1.64 | 2.91 | 1.68 |
| Nov | 1.67 | 2.95 | 1.68 | 2.89 | 1.72 |
| Dec | 1.46 | 2.91 | 1.46 | 2.83 | 1.46 |
| Jan'00 | 1.46 | 2.91 | 1.46 | 2.92 | 1.46 |
| Feb | 1.46 | 2.84 | 1.46 | 2.85 | 1.46 |
| Mar | 1.46 | 2.81 | 1.46 | 2.83 | 1.46 |
| Apr | 1.46 | 2.79 | 1.46 | 2.81 | 1.46 |
| May | 1.46 | 2.82 | 1.46 | 2.84 | 1.46 |
| Jun | 1.46 | 2.83 | 1.46 | 2.83 | 1.46 |
| Jul | 1.46 | 2.85 | 1.46 | 2.82 | 1.46 |
| Aug | 1.46 | 2.84 | 1.46 | 2.85 | 1.46 |
| Sep | 1.46 | 2.83 | 1.46 | 2.82 | 1.46 |
| Oct | 1.46 | 2.83 | 1.46 | 2.82 | 1.46 |
| Nov | 1.46 | 2.87 | 1.46 | 2.87 | 1.46 |
| Dec | 1.46 | 2.94 | 1.46 | 2.88 | 1.46 |
| Jan'01 | 1.47 | 2.87 | 1.48 | 2.90 | 1.52 |
| Feb | 1.46 | 2.94 | 1.46 | 2.92 | 1.46 |
| Mar | 1.46 | 2.90 | 1.46 | 2.90 | 1.46 |
| Apr | 1.46 | 2.96 | 1.46 | 2.94 | 1.48 |
| May | 1.49 | 2.98 | 1.50 | 2.95 | 1.54 |
| Jun | 1.56 | 2.98 | 1.57 | 2.98 | 1.65 |
| Jul | 1.59 | 3.01 | 1.60 | 3.01 | 1.68 |
| Aug | 1.60 | 3.00 | 1.60 | 3.02 | 1.74 |
| Sep | 1.61 | 3.06 | 1.62 | 3.08 | 1.76 |
| Oct | 1.64 | 3.07 | 1.65 | 3.08 | 1.79 |
| Nov | 1.63 | 3.10 | 1.63 | 3.08 | 1.77 |
| Dec | 1.30 | 3.00 | 1.31 | 2.99 | 1.45 |

(continues)

Appendix Table 1. (continued)

| | January 1996 - February 2009 | | | | |
|--------|------------------------------|-----------------------|--------------------------|---------------------|-------------------|
| | Hartford Class I & Compact | Hartford Retail Price | Boston Class I & Compact | Boston Retail Price | Boston Coop Price |
| | Per gallon | Per gallon | Per gallon | Per gallon | Per gallon |
| Jan'02 | 1.30 | 3.01 | 1.31 | 2.99 | 1.45 |
| Feb | 1.30 | 3.00 | 1.31 | 2.98 | 1.44 |
| Mar | 1.27 | 3.00 | 1.28 | 2.99 | 1.42 |
| Apr | 1.26 | 2.99 | 1.27 | 2.99 | 1.40 |
| May | 1.24 | 2.99 | 1.25 | 2.99 | 1.39 |
| Jun | 1.22 | 2.99 | 1.23 | 2.99 | 1.37 |
| Jul | 1.18 | 2.99 | 1.19 | 2.99 | 1.33 |
| Aug | 1.17 | 2.99 | 1.18 | 2.97 | 1.30 |
| Sep | 1.17 | 2.99 | 1.18 | 2.97 | 1.30 |
| Oct | 1.14 | 2.99 | 1.15 | 2.97 | 1.27 |
| Nov | 1.18 | 2.99 | 1.19 | 2.97 | 1.31 |
| Dec | 1.18 | 2.99 | 1.18 | 2.97 | 1.30 |
| Jan'03 | 1.18 | 2.99 | 1.19 | 2.97 | 1.31 |
| Feb | 1.15 | 2.99 | 1.16 | 2.97 | 1.28 |
| Mar | 1.11 | 2.99 | 1.12 | 2.97 | 1.24 |
| Apr | 1.10 | 2.99 | 1.11 | 2.97 | 1.23 |
| May | 1.11 | 2.99 | 1.11 | 2.97 | 1.23 |
| Jun | 1.11 | 2.99 | 1.12 | 2.97 | 1.24 |
| Jul | 1.11 | 3.02 | 1.12 | 2.97 | 1.27 |
| Aug | 1.21 | 3.02 | 1.22 | 2.97 | 1.37 |
| Sep | 1.45 | 3.07 | 1.46 | 3.06 | 1.60 |
| Oct | 1.50 | 3.10 | 1.51 | 3.06 | 1.65 |
| Nov | 1.51 | 3.11 | 1.52 | 3.06 | 1.66 |
| Dec | 1.46 | 3.18 | 1.47 | 3.13 | 1.62 |
| Jan'04 | 1.29 | 3.18 | 1.30 | 3.13 | 1.44 |
| Feb | 1.27 | 3.08 | 1.28 | 3.03 | 1.42 |
| Mar | 1.30 | 3.08 | 1.31 | 3.03 | 1.45 |
| Apr | 1.44 | 3.08 | 1.45 | 3.03 | 1.60 |
| May | 1.96 | 3.62 | 1.97 | 3.57 | 2.12 |
| Jun | 2.09 | 3.74 | 2.10 | 3.64 | 2.24 |
| Jul | 1.81 | 3.59 | 1.82 | 3.55 | 1.97 |
| Aug | 1.53 | 3.43 | 1.54 | 3.37 | 1.68 |
| Sep | 1.47 | 3.49 | 1.48 | 3.39 | 1.62 |
| Oct | 1.54 | 3.49 | 1.55 | 3.30 | 1.70 |
| Nov | 1.50 | 3.47 | 1.51 | 3.28 | 1.65 |
| Dec | 1.51 | 3.46 | 1.52 | 3.29 | 1.67 |

(continues)

Appendix Table 1. (continued)

| | January 1996 - February 2009 | | | | |
|--------|------------------------------|-----------------------|--------------------------|---------------------|-------------------|
| | Hartford Class I & Compact | Hartford Retail Price | Boston Class I & Compact | Boston Retail Price | Boston Coop Price |
| | Per gallon | Per gallon | Per gallon | Per gallon | Per gallon |
| Jan'05 | 1.70 | 3.68 | 1.71 | 3.37 | 1.86 |
| Feb | 1.46 | 3.68 | 1.47 | 3.28 | 1.61 |
| Mar | 1.60 | 3.52 | 1.61 | 3.18 | 1.75 |
| Apr | 1.49 | 3.70 | 1.49 | 3.18 | 1.64 |
| May | 1.54 | 3.47 | 1.55 | 3.06 | 1.70 |
| Jun | 1.44 | 3.48 | 1.45 | 3.06 | 1.60 |
| Jul | 1.47 | 3.47 | 1.47 | 3.14 | 1.62 |
| Aug | 1.51 | 3.46 | 1.52 | 3.05 | 1.67 |
| Sep | 1.45 | 3.38 | 1.46 | 3.06 | 1.59 |
| Oct | 1.50 | 3.40 | 1.51 | 3.14 | 1.64 |
| Nov | 1.52 | 3.44 | 1.53 | 3.18 | 1.66 |
| Dec | 1.44 | 3.43 | 1.45 | 3.13 | 1.58 |
| Jan'06 | 1.42 | 3.44 | 1.43 | 3.26 | 1.56 |
| Feb | 1.42 | 3.45 | 1.43 | 3.14 | 1.56 |
| Mar | 1.35 | 3.44 | 1.35 | 3.11 | 1.48 |
| Apr | 1.24 | 3.30 | 1.24 | 3.03 | 1.37 |
| May | 1.21 | 2.97 | 1.22 | 2.98 | 1.35 |
| Jun | 1.20 | 2.83 | 1.20 | 2.98 | 1.33 |
| Jul | 1.33 | 2.83 | 1.25 | 2.98 | 1.38 |
| Aug | 1.21 | 2.83 | 1.22 | 3.09 | 1.35 |
| Sep | 1.20 | 2.84 | 1.21 | 3.08 | 1.34 |
| Oct | 1.34 | 2.92 | 1.35 | 3.13 | 1.48 |
| Nov | 1.34 | 2.92 | 1.35 | 3.18 | 1.47 |
| Dec | 1.34 | 3.42 | 1.35 | 3.21 | 1.48 |
| Jan'07 | 1.44 | 3.49 | 1.45 | 3.30 | 1.58 |
| Feb | 1.42 | 3.53 | 1.43 | 3.32 | 1.56 |
| Mar | 1.50 | 3.57 | 1.51 | 3.36 | 1.63 |
| Apr | 1.56 | 3.59 | 1.57 | 3.36 | 1.70 |
| May | 1.64 | 3.63 | 1.65 | 3.40 | 1.78 |
| Jun | 1.81 | 3.86 | 1.81 | 3.65 | 1.94 |
| Jul | 2.07 | 4.02 | 2.08 | 3.90 | 2.21 |
| Aug | 2.14 | 4.05 | 2.15 | 3.88 | 2.28 |
| Sep | 2.16 | 4.08 | 2.16 | 3.92 | 2.29 |
| Oct | 2.13 | 3.94 | 2.14 | 3.92 | 2.27 |
| Nov | 2.12 | 3.88 | 2.12 | 3.84 | 2.25 |
| Dec | 1.99 | 3.81 | 2.00 | 3.80 | 2.13 |

(continues)

Appendix Table 1. (continued)

| January 1996 - February 2009 | | | | | |
|------------------------------|--|--|--|--------------------------------------|------------------------------------|
| | Hartford Class I & Compact Per gallon | Hartford Retail Price Per gallon | Boston Class I & Compact Per gallon | Boston Retail Price Per gallon | Boston Coop Price Per gallon |
| Jan'08 | 2.07 | 3.84 | 2.08 | 3.83 | 2.21 |
| Feb | 1.96 | 3.88 | 1.97 | 3.84 | 2.10 |
| Mar | 1.71 | 3.92 | 1.72 | 3.85 | 1.84 |
| Apr | 1.87 | 3.78 | 1.88 | 3.72 | 2.01 |
| May | 1.70 | 3.80 | 1.71 | 3.73 | 1.84 |
| Jun | 1.83 | 3.76 | 1.84 | 3.73 | 1.97 |
| Jul | 2.06 | 3.74 | 2.07 | 3.79 | 2.20 |
| Aug | 1.86 | 3.85 | 1.87 | 3.83 | 2.00 |
| Sep | 1.79 | 3.87 | 1.80 | 3.81 | 1.93 |
| Oct | 1.61 | 3.88 | 1.62 | 3.84 | 1.74 |
| Nov | 1.76 | 3.85 | 1.77 | 3.84 | 1.90 |
| Dec | 1.60 | 3.85 | 1.61 | 3.79 | 1.74 |
| Jan'09 | 1.62 | 3.88 | 1.63 | 3.76 | 1.76 |
| Feb | 1.19 | 3.82 | 1.20 | 3.68 | 1.37 |

Source: Data from Order One Market Administrator and Dairy Market News

Note: Northeast Dairy Compact began 7/97 and ended 9/01

