The Impact of the New York State Retail Milk Price Regulation on Farm-to-Retail Price Transmission and Supermarket Pricing Strategies in Metropolitan Fluid Milk Markets

Prior to the Milk Price Gouging Law

There is asymmetry in the transmission of changes in the Class I prices to retail prices during the pre-law period. The null hypothesis of symmetry of the effects of increases and decreases in the Class I prices on changes in the retail prices is rejected in all analyzed cases. Increases in the Class I prices are transmitted more completely than decreases, which is similar to the empirical evidence reported by other studies. There is no striking difference in the price-transmission patterns across the cities and whole milk container sizes, although there are some city-specific and container-specific variations.

The estimation results characterizing the law period reveal a completely different price-transmission pattern. The null hypothesis of symmetric transmission of increases and decreases in the Class I prices to retail prices is rejected. The magnitude of the estimated coefficients for the Class I price increases and decreases as well as their comparison with the pre-law period suggest that retail prices respond to increases and decreases in the Class I fluid milk prices in a symmetric manner in all analyzed cases in the law period. Furthermore, the magnitude of the estimated coefficients for both increases and decreases in the Class I price is higher in the law period as compared to the pre-law period.

Projected Data Analysis of Regime Shift

In cases where the NYS DAM maximum retail price threshold is estimated to be binding, Class I price increases are transmitted at a higher rate than Class I price decreases. In contrast, in cases where the NYS DAM maximum retail price threshold is not binding, Class I price decreases are transmitted at a higher rate than Class I price increases. Although, whole milk gallons in Albany were not priced at the NYS DAM threshold, the price-transmission pattern characterizing this case was more consistent with the pattern for New York City, rather than the rest of Upstate New York cities. This may indicate a difference in the local competitive environments across Upstate NY.

Retail Pricing Strategies

The NYS MPGL had a significant effect on the nature of the Class I fluid milk price-transmission process and supermarke pricing strategies in the fluid whole milk market. Prior to the enactment of the law, supermarkets used the retail price stabilization strategy. The empirical evidence on the asymmetric response of changes in retail prices and marketing margins to increases and decreases in the Class I fluid milk prices may indicate a presence of this strategy.

In contrast, during the period of enforcement of the MPGL, 100% rule, supermarkets used the retail profit stabilization strategy. The empirical evidence on the symmetric response of changes in retail prices and marketing margins to increases and decreases in the Class I fluid milk prices may indicate a presence of this strategy.

Ironically, inasmuch as the law was framed to protect consumers from price gouging, the effect of the law may well have been to ensure that a kind of price gouging did occur. Advanced public announcements of the NYS DAM maximum retail price thresholds in conjunction with the advanced public announcements of the Class I fluid milk prices on a monthly basis created an institutional environment that facilitated cooperative conduct of retailers acting in an oligopolistic market environment. In this type of market environment, the retail profit stabilization strategy was more profitable for retailers than the retail price stabilization strategy. Prevented from maintaining adequate absolute margins when input prices were very low, retailers found it appealing, if not necessary, to take advantage of high absolute margins when input prices were high.

As a result of this study, NYS DAM stopped announcing a monthly Threshold price, to avoid its anchoring effect. The MPGL Law remains in effect.

The patterns observed in NYC differ from the averages observed in Federal Otter markets not in their broad sweep but in the smaller monthly changes. Nationally, retailers engage in a “price smoothing” strategy that resists smaller changes in input prices but follows larger and/or longer trends, both up and down. This strategy means that losses incurred when input prices are rising are recovered when input prices decline.

The table entries are the estimated coefficients (Z-statistic) of the model. The table includes the estimated coefficients, standard errors, t-statistics, and p-values. The table also includes the coefficients for both increases and decreases in the Class I price.

Following the implementation of the Milk Price Gouging Law (MPGL) in June 1991, NYC Retail Prices began to follow a pattern very similar to that of that of metropolitan Class I prices, in marked contrast to the pre-law patterns.

The table includes the estimated coefficients, standard errors, t-statistics, and p-values. The table also includes the coefficients for both increases and decreases in the Class I price.