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Recession and Income Effect on the Private Label Products Demand: A Case Study of Fluid Milk

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Recession and Income Effect on the Private Label Products Demand: A Case Study of Fluid Milk

Abstract

The goal of this paper is to examine the effect of recession and income on private label demand of different package sizes of fluid milk. we use household-level transaction data for private label and national brands of fluid milk, and household-level data from Nielsen Homescan panel which is comprised of detailed purchase information for more than 72,000 households who purchase fluid milk from all U.S. retailers. The data is recorded through the years, 2004-2014 which includes Great Recession. Non-linear pricing in the fluid milk makes the price of 0.5-gallon and 1-gallon close. In addition, differences between the average prices of private label and national brands in different package sizes of fluid milk differ unexpectedly. We find that the effect of income varies across different package sizes. Specifically, the share of private label 0.25-gallon fluid milk and income are negatively related, while the effect of income for the two other sizes is statistically insignificant. The share of private label fluid milk purchases increased during the recession and continue to increase at a higher rate after the recession up to the year 2012. Different specifications the data confirm these results.

Key Words: *private label, national brands, fluid milk, recession, household-level data*

JEL codes: *D120, M310, E320.*

1 Introduction

The large growth of private labeling in the last decades has become a concern for national brand manufacturers. Retailers endeavor to expedite the increase in private label share in order to boost their profit margins and store loyalty. The private label products are categorized as inferior goods. Previous studies also indicate shares of private labels differ greatly across all products. For example, the private label share of food, in general, is 21% while the share for fluid milk is 78%. Therefore, examining the effect of household income on the demand for private label for a specific product leads to more precise results. Accordingly, the key question of this paper is examining the impact of household income and recession on the private label share of fluid milk since there is an index difference between milk and food in general.

Despite growth experienced by private label share over several decades, there has been higher growth during and after the Great Recession (December 2007 to June 2009, based on NBER) (Wong 2008, Frank 2010, and Hammerbeck 2008). The Great Recession was the biggest recession after World War II in terms of decline in real GDP and increased unemployment (Dube, Hitsch, and Rossi 2015). Among the studies on private label demand over the business cycle fluctuation, Lamy, Deleersder, Steenkamp, and Dekimpe show that the per capita GDP and private label share are negatively related. Hence, the decrease in the per capita GDP leads to a permanent increase in the annual growth rate of the private label share. Dube, Hitsch, and Rossi (2015) verified the negative effect of income and recession on private label share of products; nonetheless, the effect of income is small in their study in comparison to other studies.

Among all product, fluid milk is the only product for which share the of private label is bigger than national brands, while the average share of private label in food products is about 20%. In

fact, some people who prefer national brands, in general, buy private label fluid milk. Therefore, one can claim that it is likely that fluid milk violates the general rule of private label products as inferior goods.

The goal of this paper is to examine the effect of household-level income and Great Recession affecting private label demand of different package sizes of fluid milk. To accomplish this aim, we apply household-level transaction data for private label and national brands of fluid milk. we use household-level data from Nielsen Homescan panel, which is comprised of detailed purchase recorded for more than 72,000 households purchasing fluid milk from all U.S. retailers. The data contain demographic information of households such as income, size, employment, and marital status.

In this paper, we use the data recorded through the years, 2004-2014: we have considerable data for years prior to and after the Great Recession. During the recession, the economy was exposed to substantial changes which varied remarkably across geographic areas and households.

The price of 0.5-gallon and 1-gallon are generally very close due to the non-linear pricing of fluid milk. Also, the private label share of fluid milk is negatively related to the package size. Moreover, differences between the average prices of private label and national brands in different package sizes of fluid milk vary unexpectedly. For example, the difference in the average price of 0.5-gallon of private vs. national is large, while 0.25-gallon and 1-gallon prices are similar between private and national. Therefore, to discover the effect of income and recession on private label share, we consider different package sizes of fluid milk.

We find that the effect of income varies across different package sizes. More specifically, the share of private label of 0.25-gallon fluid milk and income are negatively related, thus a 10%

increase in household income is associated with 0.19 percentage point decrease in private label share of 0.25-gallon milk. Nevertheless, the effect of income in two other sizes is statistically insignificant. The share of private label fluid milk increased during the recession and continues to increase at a higher rate after the recession up to 2012. Different specifications and a subsample of the data confirm these results.

The paper proceeds as follows: In the next section, we summarize recent related studies for the effect of income and recession on private label demand. Section 3 describes the data, and section 4 outlines the econometric modeling approach. Section 5 presents the empirical results. Finally, the conclusion is provided in section 6.

2 Literature Review

The analysis of this paper extends the literature on the effects of the Great Recession, particularly sharing how changes in income during the recession affected the demand pattern of different package sizes of fluid milk.

A large body of literature emphasizes the growth of private label share because of the recession. However, a few studies pointed to the effect of income on the private label share. Hoch and Banerji (1993) have pioneered in providing an empirical analysis of the correlation between disposable income and private label share. They find a strong negative correlation using annual time series data. Lamey, Deleersnyder, Dekimpe, and Steenkamp (2012), also applying time series data, determine that a 1 percent decrease in real per capita GDP is associated with 1.22 point increase in permanent annual growth rate of private label expenditure share. Dube, Hitch, and Rossi (2015) use this result and show 5.5% decrease in real GDP due to most recent Great Recession should double private label share approximately every 15 years.

Sethuraman and Gielens (2014), analyze 54 empirical studies to identify determinants of store brand share; they conclude that household income and private label share are negatively related, with this effect being stronger in the most recent five-year studies.

Moreover, Akbay and Jones (2005), use weekly scanner data of six supermarkets (June 1998 – September 1998). Based on residences of consumers in the data, they categorize supermarkets as stores that serve mainly higher-income shoppers and stores that serve primarily lower-income shoppers. Considering nine major food groups including fluid milk, they show that income and national brand purchases are positively related to all products but fluid milk. They believe the different results for fluid milk are caused by limited choices of national brands for this product. Moreover, they find that private label products are a strong substitute for national brands; but, national brands are a weak substitute for private label products. This result is consistent with Blatberg, Briesch, and Fox (1995), as well as Cotterill and Putsis (2001). However, Akbay and Jones (2005) find that fluid milk does not follow the relationship of the strong substitutionary role of private labels for national brands.

Nielsen, A.C. (2014), finds the demand for private label fluid milk is bigger than national brands. He finds the success of private-label in fluid milk corresponds to (i) minimal differentiation and low brand equity, (ii) high price sensitivity and high purchase frequency, and (iii) low innovation rate.

Gruver, Meacham, and Tager (2011) report that competition between the national brands and private labels depends on the nature of the category and brand's position. For example, the category of perishable, high-frequency purchase accompanied by low media spending, low innovation, and barriers to entry increases the likelihood of private label to mostly succeeding.

Dube, Hitsch, and Rossi (2015) measure the causal effect of income on private label demand of consumer food packaged goods. They use household-level panel data (2004-2010). They find the relatively small negative effect of income on private label share, which is strikingly different from prior studies. The recession is an important variable in the growth of private label share; however, they find a large positive trend in private label share predates the Great Recession. They show the relatively very small effect of income because they control for the trend. Additionally, having variation across household-level data enabled them to test for the income effect as a result of selection. Lack of household level data with variation in survey studies (such as Murphy and Laczniak, 1979; Rosen, 1984; Barta and Sinha, 2000; Ailawadi, Neslin, and Gedenk, 2000) or even studies using panel data with household cross-sectional variation (such as Erdem, Zhao, and Valenzuela, 2004; Hansen, Singh, and Chintagunta, 2006; Ailawadi, Pauwels, and Steenkamp, 2008; Bronnenberg, Dube, Gentzkow, and Shapiro, 2014; Sethuraman and Gielens, 2014) resulting unable to test for the income selection.

Unlike Dube, Hitsch, and Rossi (2015) who considered all consumer packaged goods, we focus on examining the effect of recession and income on the demand for different package sizes of fluid milk.

3 Data

The source of data comes from the Nielsen Homescan panel data which covers 2004 to 2014. The raw data consist of 49 different states and 9 regional areas, and 74,171 households, 2,843 unique UPC's of fluid milk, and 25,880 stores. Households in the panel record the data using optical scanners at home to scan the barcodes of each of the UPC-coded items that they purchase during their purchasing trips. The data includes date, price, the Universal Product Code (UPC), chain code, product attributes, such as brand name, pack size, and labeling, and promotions.

Additionally, household demographics, such as size, education, marital, and employment status, race, and income are updated annually.

Reporting of household income is the year two years prior to the panel year. For example, the income in the 2006 panel is the total annual income of 2004; hence, we have to drop the households who report purchases for less than three years. we also drop a small number of transactions with remarkably large or small prices. Specifically, we delete any transaction with a price of more than four times the median price or less than one-fourth of the median of all transactions for a specific size. Since the original Homescan data is not a representative of the U.S. population, we consider projection factors (sampling weights) provided by Nielsen to overcome this problem.

Table 1 shows the summary of the final data which includes more than 2 million transaction data of fluid milk. Among different package sizes, 1-gallon is highly demanded, and 0.25-gallon has the least demand. As we move from bigger size to the smaller, the private label share obviously decreases. Additionally, the non-linear pricing of fluid milk is clear in this table; even though the size of 1-gallon is four times bigger than the 0.25-gallon, the price of 1-gallon is less than twice of 0.25-gallon fluid milk.

4 Empirical Strategy and Identification

The empirical analysis focuses on private label expenditure shares as a measure of private label demand. For each household h in year t and month m we define private label expenditure share (s_{hmt}) equation as follow:

$$s_{hmt} = \frac{P_{PLmt} Q_{PLmt}}{P_{PLmt} Q_{PLmt} + P_{NBmt} Q_{NBmt}} \quad (1)$$

$P_{PL_{mt}}$ and $P_{NB_{mt}}$ are price indices for the private label and national brands of fluid milk in month t of year t , and $Q_{PL_{mt}}$ and $Q_{NB_{mt}}$ are total quantity of purchased private label and national brands fluid milk in month m of year t . In a naive specification one might regress private label share on income and recession dummies. The regression equation corresponding to this specification is:

$$s_{hmt} = \beta_0 + \beta_1 \log(I_{ht}) + \beta_2 R + \beta_3 PR + \varepsilon_{hmt} \quad (2)$$

where s_{hmt} is private label expenditure share for household h in month m in year t which is calculated through equation (1), I_{ht} is the income of household h in year t , R is the dummy variable equal to one for the recession period (December 2007- June 2009), PR is the dummy variable equal to one for the post-recession period (July 2009-December 2012), and ε_{hmt} captures all unobservable effecting the dependent variable.

One particular concern of using equation (2) to estimate the effect of income and recession on private label share is omitted variable bias. This problem may be due to excluding time unobservable time-invariant household-level characteristics which can be correlated with income (or recession) and private label share. Omitting unobservable time-invariant household level variables can cause either positive or negative bias for the income and/or recession point estimates. To address this concern we include household fixed effect in the final model. For similar reasons, omitting time-invariant market-level variables (e.g. store physical location) can cause bias in the point estimates. To control for these types of unobservable variables we use state-level fixed effects. Finally, because of seasonality issues, we use month fixed effects. Adding month fixed effects to the final regression will increase the precision of the estimated standard errors. However, omitting month fixed effect cannot cause bias in the point estimates

because this variable is only correlated with the private label share and not with the independent variables. we use the following equation as a preferred specification:

$$s_{hmt} = \beta_0 + \beta_1 \log(I_{ht}) + \beta_2 R + \beta_3 PR + u_h + \tau_m + \varphi_s + e_{hmt} \quad (3)$$

where u_h is households fixed effects (household size, race, employment, marital status, and education level), τ_m is monthly fixed effects, φ_s indicate states fixed effects, and e_{hmt} captures all unobservable effecting the dependent variable.

Since the Homescan data does not experimentally generate income level, there is selection concern. For example, the households with higher social status level may choose well-paid incomes and may have a higher preference for branded products. In this case, income and private label share are negatively correlated even though they are not statistically related.

To overcome the selection bias, we use fixed effects to control for persistent differences in private label demand across the households. Therefore, within-household changes in income is as good as randomly assigned (Chou, Grossman, and Saffer 2004, Dube, Hitsch, and Rossi 2015)

5 Results

Figure 1 displays private label and national brand average prices from 2004 to 2014 by the package size. The dash lines in figure 1 are indicators of the recession period. The average prices of private label and national brands of fluid milk decrease during the recession for all three different sizes and increase after the recession at a lower rate compared to pre-recession; however, the reduction during the recession is more severe in 1-gallon size. Even though the size of 1-gallon is twice the 0.5-gallon size, the difference between their prices is small and shows non-linearity in the price of fluid milk. Surprisingly, the difference between the average price of private label and national brands of 0.5-gallon fluid milk is bigger than 1-gallon. Moreover, the average price of private label for 1-gallon size exceeds the national brand's average price in

2013. In summary, there is a heterogeneous pattern in average prices of different sizes as well as the difference between private label and national brands average prices.

Table 2 reports several different specifications of private label share of 0.25-gallon fluid milk regression. All specifications include the log of household income. Column (1) contains simple cross-sectional specification results; the estimation result suggests a positive effect of income on private label share. However, using cross-sectional data causes omitted variable bias. In column (2), we use additional explanatory variables including household characteristics such as household size, race, employment, marital status, and education level; and product characteristics such as container type (plastic, glass, and other types), organic label, and deal flag.¹ Albeit, estimated the coefficient for a log of income still shows bias (because of omitted variables).

we use NBER's business cycle dating procedure to define the Great Recession (December 2007-June 2009). In the third column, we add monthly dummies for the Great Recession and post-recession period. The result indicates positive and significant effect during both recession and post-recession on the private label share, with a relatively greater effect for the post-recession.

In order to account for unobservable household-level time-invariant variables, we use the household fixed effect in column (4). Since income variation within the household is annual, omitting month fixed effect should not introduce bias in the income point estimate; nevertheless, omitting month fixed effects can introduce bias for the recession and post-recession estimates. The estimated coefficient for a log of income is (-0.019); the sign does not correspond to the previous regression which is negative and consistent with the literature. It means not considering household fixed effect causes bias in the result. This coefficient implies that a 10% increase in

¹ Regression results for these variables are not reported in the result tables and are available upon request.

household income is associated with 0.19 percentage point decrease in private label share. The recession and post-recession coefficients are positive and significant. Similar to previous regression results, the point estimate of post-recession is bigger than recession estimate. In fact, these results indicate that recession has a positive impact on private label share and this effect continue after the recession with even a bigger impact. In column (5), as an additional control, we considered month fixed effects, which makes the result more concise (lower standard errors).

Finally, in column (6), as a robustness check, we add state fixed effects to control for unobservable time-invariant effect of states. Results of the three last columns show that the estimation is robust to different specifications since the coefficients of the log of income, recession, and post-recession are similar. Results indicate that effects of income, recession, and post-recession on private label share are similar to the specification number 5. Thus showing that the estimation is robust to different specifications. Comparing estimation results of the last three columns also show the robustness of the result. We use specification number 5 as my preferred specification in this paper. In summary, income has a significant negative effect on private label share of 0.25-gallon fluid milk. Moreover, results show that private label share robustly increases during the recession and post-recession compared to the pre-recession period. Interestingly, the post-recession has an even greater impact on private label share than during the recession. This result is consistent with findings of Dube, Hitsch, and Rossi (2015) finding.

Tables 3, 4, and 5 show results of 0.5-gallon, 1-gallon, and all fluid milk in general. The specifications in these tables follow the same specification as we indicate in table 2. Results in column 5 (my preferred specification) respectively listed in table 3, 4, and 5 show insignificant effect of income on the private label share of 0.5-gallon, 1-gallon, and fluid milk in general.

Contrary to these results, the effect of income is significant for 0.25-gallon fluid milk.

Altogether, we find that the recession and post-recession have positive and significant effects on private label share.

In summary, individuals are more likely buy private label fluid milk than national brands during and after the recession. we observe and find that the effect of income is significant only for 0.25-gallon fluid milk.

6 Conclusions

This paper studies the effect of income and the Great Recession on private label share of fluid milk in the United States. For this, we used Nielson Homescan dataset for the period of 2004-2014 which includes the years prior, during, and following the Great Recession.

Using the fixed effects model, results indicate that the effect of income on private label share of fluid milk is heterogeneous among different package sizes of fluid milk (e.g. 0.25, 0.5, and 1 gallon). Specifically, results provide the negative significant effect of income for 0.25-gallon private label share; however, the effect of income for 0.5-gallon, 1-gallon, and fluid milk, in general, is not statistically significant. Finally, results present clear evidence for a positive effect of recession and post-recession on private label share for all three package sizes. Interestingly, the positive effect of post-recession is even bigger than the recession.

Overall, this paper provides insights into the effects of income and recession on private label share for different package sizes of fluid milk. Income is only significant in the demand for 0.25-gallon fluid milk. This result shows that fluid milk, in general, does not follow the general rule of a negative relationship between household income and private label share. Therefore, retailers benefit the margin of this high demanded private label product from households independent of their level of income.

The other main result is negative relationship of income and private label share for 0.25-gallon fluid milk. Therefore, stores that serve primarily lower-income shoppers benefit more from 0.25-gallon private label fluid milk than those with mainly higher-income shoppers.

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Figure 1- Average Price of Private Label and National Brands from 2004 to 2014

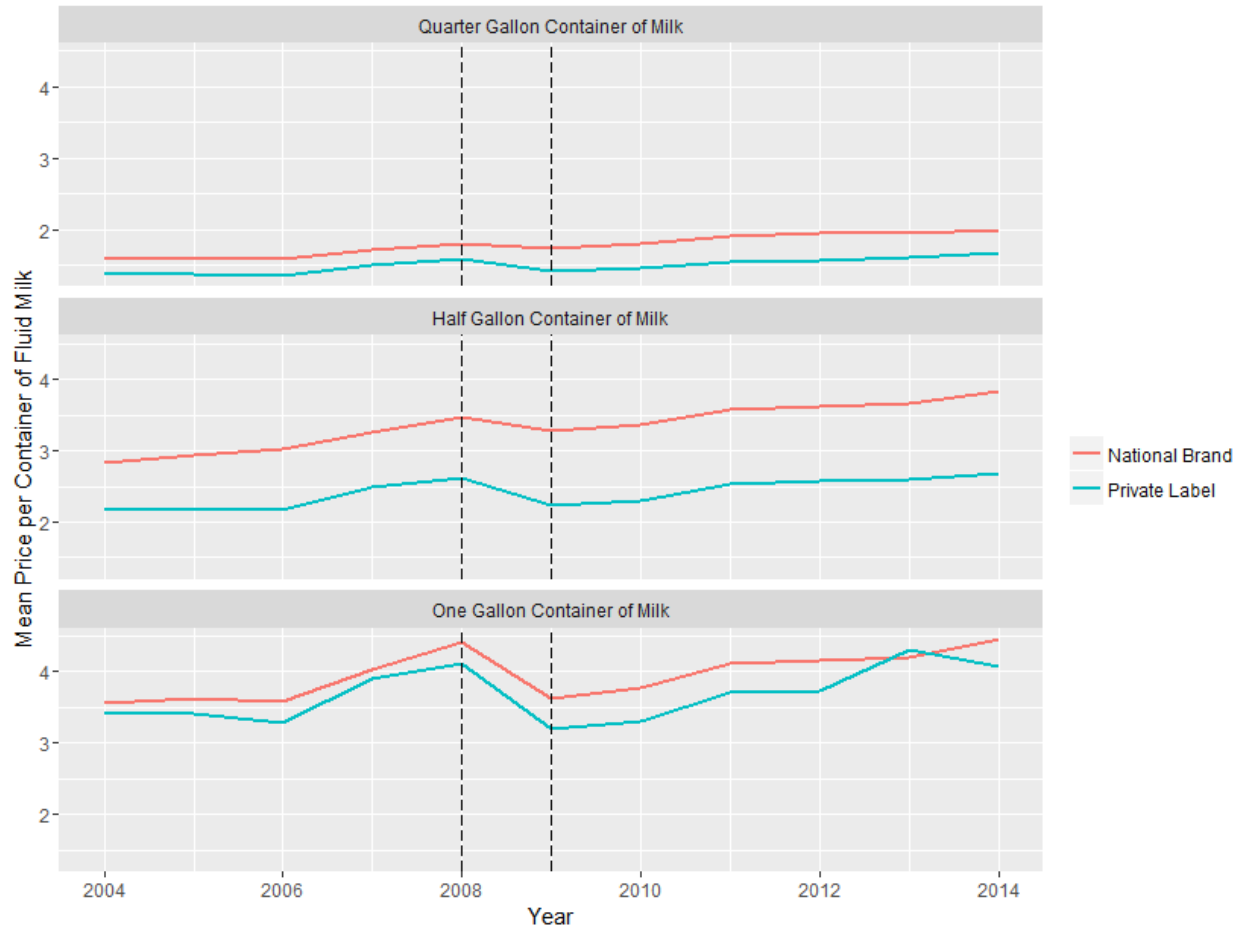


Table 1- Summary Statistics of the Private Label Share, Per Unit Price and Household's Income from 2004 to 2012.

	Variable	Obs.	Mean	S.D.	Min	Max
Fluid milk in general	Share	2,267,832	0.78	0.39	0.00	1.00
	Income	2,267,832	56,387	28,584	5,000	100000
	Price	2,267,832	2.63	0.87	0.50	13.88
1	Share	1,519,882	0.84	0.34	0.00	1.00
	Income	1,519,882	56,781	28,432	5,000	100,000
	Price	1,519,882	2.95	0.73	0.54	13.79
0.5	Share	917,020	0.71	0.44	0.00	1.00
	Income	917,020	56,128	28,726	5,000	100,000
	Price	917,020	2.18	0.89	0.51	14.28
0.25	Share	138,493	0.51	0.49	0.00	1.00
	Income	138,493	55,235	29,133	5,000	100,000
	Price	138,493	1.51	0.49	0.50	6.99

Table 2- Regression Result of Private Label Share (Dependent Variable = 0.25-Gallon Fluid Milk)

	(1)	(2)	(3)	(4)	(5)	(6)
Log (Income)	0.057*** (0.002)	0.060*** (0.002)	0.057*** (0.002)	-0.019*** (0.007)	-0.019*** (0.004)	-0.019*** (0.004)
Recession			0.038*** (0.004)	0.034*** (0.005)	0.035*** (0.002)	0.034*** (0.002)
Post-Recession			0.073*** (0.003)	0.045*** (0.006)	0.044*** (0.002)	0.043*** (0.002)
Constant	-0.098*** (0.021)	-0.150*** (0.029)	-0.164*** (0.0292)	0.707*** (0.072)	0.705*** (0.038)	-0.231 (0.162)
HH Controls	NO	YES	YES	NO	NO	NO
Product Type Controls	NO	YES	YES	YES	YES	YES
Household Fixed Effects	NO	NO	NO	YES	YES	YES
Month Fixed Effects	NO	NO	NO	NO	YES	YES
State Fixed Effects	NO	NO	NO	NO	NO	YES
Observations	139,740	139,740	139,740	139,740	139,740	139,740
R-squared	0.000	0.067	0.074	0.013	0.013	0.011
No. Households				72,333	72,333	72,333

Notes: Household level control variables includes: household size, race, employment, marital status, education level. Product type controls includes container type (plastic, glass, and other types), organic label, and deal flag. Huber- White standard errors are reported in parentheses.
 *** p<0.01, ** p<0.05, * p<0.1

Table 3- Regression Result of Private Label Share (Dependent Variable = 0. 5-Gallon Fluid Milk)

	(1)	(2)	(3)	(4)	(5)	(6)
Log (Income)	-0.015*** (0.071)	-0.003*** (0.0009)	-0.004*** (0.0008)	-0.019*** (0.007)	0.0003 (0.001)	-0.0001 (0.001)
Recession			0.039*** (0.001)	0.028*** (0.002)	0.028*** (0.0009)	0.029*** (0.0009)
Post-Recession			0.060*** (0.001)	0.0501** * (0.002)	0.050*** (0.0008)	0.051*** (0.0008)
Constant	0.877*** (0.008)	0.618*** (0.010)	0.602*** (0.010)	0.647*** (0.032)	0.645*** (0.014)	0.645*** (0.023)
HH Controls	NO	YES	YES	NO	NO	NO
Product Type Controls	NO	YES	YES	YES	YES	YES
Household Fixed Effects	NO	NO	NO	YES	YES	YES
Month Fixed Effects	NO	NO	NO	NO	YES	YES
State Fixed Effects	NO	NO	NO	NO	NO	YES
Observations	917,020	914,658	914,658	914,658	914,658	914,673
R-squared	0.001	0.091	0.095	0.012	0.012	0.010
No. Households				58,327	58,327	58,327

Notes: Household level control variables includes: household size, race, employment, marital status, education level. Product type controls includes container type (plastic, glass, and other types), organic label, and deal flag. Huber- White standard errors are reported in parentheses.
 *** p<0.01, ** p<0.05, * p<0.1

Table 4- Regression Result of Private Label Share (Dependent Variable = 1-Gallon Fluid Milk)

	(1)	(2)	(3)	(4)	(5)	(6)
Log (Income)	0.003*** (0.0004)	0.0008 (0.0005)	-0.0006 (0.0005)	0.0006 (0.002)	0.0006 (0.0009)	0.0008 (0.0009)
Recession			0.044*** (0.0008)	0.037*** (0.001)	0.037*** (0.0006)	0.037*** (0.0006)
Post-Recession			0.069*** (0.0006)	0.052*** (0.002)	0.052*** (0.0006)	0.052*** (0.0006)
Constant	0.806*** (0.005)	0.825*** (0.006)	0.801*** (0.006)	0.805*** (0.023)	0.800*** (0.010)	0.848*** (0.017)
HH Controls	NO	YES	YES	NO	NO	NO
Product Type Controls	NO	YES	YES	YES	YES	YES
Household Fixed Effects	NO	NO	NO	YES	YES	YES
Month Fixed Effects	NO	NO	NO	NO	YES	YES
State Fixed Effects	NO	NO	NO	NO	NO	YES
Observations	1,519,882	1,514,286	1,514,286	1,514,286	1,514,286	1,514,348
R-squared	0.000	0.007	0.015	0.007	0.007	0.008
No. Households				60,675	60,675	60,675

Notes: Household level control variables includes: household size, race, employment, marital status, education level. Product type controls includes container type (plastic, glass, and other types), organic label, and deal flag. Huber- White standard errors are reported in parentheses.
 *** p<0.01, ** p<0.05, * p<0.1

Table 5- Regression Result of Private Label Share (Dependent Variable = Fluid milk in general)

	(1)	(2)	(3)	(4)	(5)	(6)
Log (Income)	0.002*** (0.0004)	-0.002*** (0.0005)	-0.004*** (0.0005)	0.0005 (0.002)	0.0005 (0.0008)	0.0003 (0.0008)
Recession			0.046*** (0.0007)	0.037*** (0.001)	0.038*** (0.0005)	0.039*** (0.0005)
Post-Recession			0.072*** (0.0006)	0.055*** (0.002)	0.055*** (0.0005)	0.056*** (0.0005)
Constant	0.757*** (0.004)	0.627*** (0.006)	0.604*** (0.006)	0.700*** (0.021)	0.696*** (0.008)	0.767*** (0.014)
HH Controls	NO	YES	YES	NO	NO	NO
Product Type Controls	NO	YES	YES	YES	YES	YES
Household Fixed Effects	NO	NO	NO	YES	YES	YES
Month Fixed Effects	NO	NO	NO	NO	YES	YES
State Fixed Effects	NO	NO	NO	NO	NO	YES
Observations	2,267,832	2,259,845	2,259,845	2,259,845	2,259,845	2,259,921
R-squared	0.000	0.067	0.074	0.013	0.013	0.011
No. Households				72,333	72,333	72,333

Notes: Household-level control variables include household size, race, employment, marital status, education level. Product type controls include container type (plastic, glass, and other types), organic label, and deal flag. Huber- White standard errors are reported in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 6- Number and Percentage of Households in Different Categories of private label share of fluid milk from 2004 to 2012.

Private label share of fluid milk	0.25 gallon		0.5 gallon		1 gallon	
	No.	%	No.	%	No.	%
0	66,518	47.22	236,130	25.74	183,882	12.1
1	69,352	49.99	627,882	68.44	1,209,274	79.54
Between 0 and 1	3,870	2.79	53,447	5.82	127,014	8.36
Total	139,740	100	917,459	100	1,520,170	100.00