Effect of Trans Fat Labeling Rule: Evidence from the U.S. Margarine/Spreads Market

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Introduction

- The Nutrition Labeling and Education Act (NLEA) was enacted in November, 1990 and became effective in May, 1994.
- Regulations on three fronts: Mandatory nutrition facts panel, Nutrient content claims and Health claims.
- In January 2006, the trans fat labeling rule was implemented. It requires a mandatory separate labeling row for “trans fat” in the “Nutrition Facts” box. Voluntary Trans Fat Free (TFF) claims may be made for products with less than 0.5 g of trans fat per serving.

Objectives

- Test the effectiveness of the nutrition labeling policy on trans fatty acids.
- Distinguish short-run and long-run effects of the policy.
- Investigate demand and supply of the food market with differentiable products: Margarine/Spreads.

Model

To analyze households’ purchase decision, we specify a complementary log log model as follows:

\[ \text{Un} = \alpha + \beta P + \gamma X + \delta Z + \epsilon \eta \text{ShortNLEA} + \theta \text{LongNLEA} + \epsilon n \]

Where \( P \) denotes the product price, \( X \) includes all consumer demographics, \( Z \) denotes all product features, \( t \) is the time trend, and \( \epsilon n \) denotes the i.i.d. error term. \text{ShortNLEA} is a dummy with value of 1 in 2006 and 2007 and 0 otherwise, while \text{LongNLEA} is a dummy with value of 1 for all years from 2008 to 2011 and 0 otherwise.

Data


Key Findings

- Over this period of time, the average annual price of products with TFF claim was higher than that of products without such claims except in 2006 and 2007.

Conclusions

- Demand for Margarine/Spreads with TFF claim increased over time.
- Consumers’ purchases positively respond to nutrition labeling policy in the case of trans fatty acids.
- The short term effect on trans fat labeling is significantly larger than the long term effect.
- Families with children are more inclined to buy Margarine/Spreads with TFF claims both in the short and long run.
- Price, income and product features significantly influence the annual purchase probability of product with TFF claim.