Parita Varanusart
5904640090

Why Do Manufacturers Issue Coupons? An Empirical Analysis of Breakfast Cereals by

Nevo and Wolfram (2002)

This paper explores the relationship between shelf prices and manufacturers' coupons for 25 ready- to-eat breakfast cereals. It finds that shelf prices are lower during periods when coupons are available. However, the result is inconsistent with static monopoly price discrimination under a broad range of assumptions. Lagged coupons have a positive effect on current sales, suggesting that coupons are used to induce repurchase.

Equation (1)

$$SHELF\ PRICE_{bct} = \gamma_{b(c)} + \phi_{c(t)} + \delta_{t(b)} + \theta DOLLARS\ OFF_{bct} + \varepsilon_{bct},$$

where

- SHELF PRICEbct is the average shelf price for cereal brand b in city c during quarter t
- DOLLARS OFFbct is the expected value of the coupon available for cereal brand b in city c during quarter t. The variable takes on a value of zero when there is no coupon available.
- We also estimate versions of equation (1) in which we substitute PROB OF COUPONbct, which reflects the probability that there is a coupon for a given city, brand, and quarter. Yb and &c capture brand- and city-specific factors that affect demand or the cost of selling cereal. St is included to capture the trend in cereal prices over the time period we consider. We also present estimates that allow the brand-fixed effects to vary by city (we estimate Ybc), the city-fixed effects to vary across quarters (we estimate Oct), and the quarter effects to vary by brand (we estimate Sbt)

Equation (2)

$$Y_{bct} = C + \sum_{\ell=1}^{m} \Phi_{l} Y_{bc,t-\ell} + \gamma_{bc} + \gamma_{t} + \varepsilon_{bct},$$

where

$$Y_{bct} = \begin{bmatrix} PROB\ OF\ COUPON_{bct} \\ SHELF\ PRICE_{bct} \\ VOLUME_{bct} \end{bmatrix}$$

To conclude, The overall results suggest that coupons are driven by some combination of (1) strategic interactions between manufacturers, (2) incentives given to the people within firms who make decisions about coupons, and (3) the effects of coupons on repeat purchases. The authors are less convinced that explanations based on the vertical relationship between cereal manufacturers and retailers are important.