

Summary of Nevo and Wolfram (2002) by Jinna Wichakoon (5904640900)

1. The question of this paper is to find the reasons behind “Why do manufacturers issue coupons?” through an empirical analysis of breakfast cereals.
2. They use a three-dimensional panel dataset with information on shelf prices and available coupons for 25 breakfast cereal products in up to 65 cities for every quarter from the beginning of 1989 until the end of 1992 to evaluate the dynamic impact of coupons we examine a vector autoregressive (VAR) model where the data were collected from the sources below:
 - a. The cereal price data were obtained from the IRI Infoscan Data Base at the University of Connecticut using scanning devices in a national random sample of supermarkets in metropolitan areas and rural towns.
 - b. The coupon data were obtained from Promotion Information Management (PIM). PIM collected data on coupons issued in 69 major metropolitan areas, including all 65 of the IRI area.

They model the relationship between prices and coupons with the following equation:

$$\text{SHELF PRICE}_{bct} = Y_b(c) + 0c(t) + St(b) + 0\text{DOLLARS OFF}_{bct} + E_{bct} \quad (1)$$

The variable can be describe as follow:

Variable	Interpretation
SHELF PRICE _{bct}	the average shelf price for cereal brand b in city c during quarter t
DOLLARS OFF _{bct}	the expected value of the coupon available for cereal brand b in city c during quarter t
Y _b (c) and o _c (t)	brand and city specific factors that affect demand or the cost of selling
St	Trend in cereal prices over the time period

They also estimate versions of equation (1) in which we substitute PROB OF COUPON _{bct}, which reflects the probability that there is a coupon for a given city, brand, and quarter. Y_b and &c capture brand and city specific factors that affect demand or the cost of selling.

They investigate the dynamic effects of couponing by employ a panel vector autoregressive (VAR) model

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

3. The 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. However, manufacturers seem to

dislike coupons as coupons are not jointly profit-enhancing price-discriminatory mechanism. They find that shelf prices are generally lower when there is a coupon available, and this result holds as they add a number of fixed effects to control for unobserved changes in demand and cost due to interbrand competition

4. I would say that their questions are not interesting enough as knowing the results only give us the understanding of motivation behind firm intention to offer coupons. However, the implication and application of this paper might be benefit in some cases such as firm can predict the period that their competitor will launch coupon and can create some marketing activities to fight back. From my opinion, it would be great if the result can suggest firm who participated in the same market on how can they use coupon in the right way to benefit all players and don't drag down the shelf price.
5. The Exonimics theory used within this paper are
 1. Static monopoly price discrimination was incorporate into the basic writer's perception toward coupon which refer to the ability of a monopolist to charge discriminatory prices if they can separate consumers with different elasticity where they charge the group with the less elastic demand a higher price than the group with the more elastic demand. This theory was support by the 2 assumptions in which it shows that the willingness to pay is uniformly distributed and is perfectly and positively correlated with the disutility of using a coupon.
 2. As cereal manufacturers are not monopolistic, Thus, other models describing the effects of coupons are coming into play. First, the price discrimination to oligopolistic industries where the discrimination will lead to higher profits extends to an oligopoly setting.
 3. The dynamic demand effects where a manufacturer's decision to issue a coupon may be correlated with the expected state of demand in a market. For one, these stories predict distinct patterns in the relationship between the volume of cereal sold and coupons. The quantity demanded would be lower following a period when coupons are issued, and coupons would tend to follow periods of low-volume sales.
6. I would say that the method use with this specific topic is appropriate as they already incorporate factor that might impact demand and cost of selling into account.
7. I would say that the variables use with this specific topic is appropriate as they incorporate factors that reflect reasons why firm issue coupon. At the same time the also incorporate factor that might affect demand and cost. Still I would suggest that adding others marketing activities and brand strength from semantic brand score into the equation would make the results more compelling.
8. For me, the results are clear but not convincing as I would love to see the implication and application of this research such as what could firm do make coupon become a tool that benefit all players and don't drag down the shelf price.