

Equilibrium Price Dispersion in Retail Markets for Prescription Drugs

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This paper seeks to demonstrate the empirical importance of price dispersion that arises from imperfect information by examining the retail market for prescription drugs. Price data in this paper come from 20 drug stores competing within well-defined local markets (Middletown and Newburgh, New York in March 1998), so the results can be more appropriately interpreted in the context of equilibrium price dispersion models.

On the basis of the arguments outlined in the paper, the writer expect absolute dispersion of prescription prices to decrease with purchase frequency, suggesting the following simple regression:

$$\begin{aligned} \text{RANGE}_{ij} = & \beta_0 + \beta_1 \text{PFREQ}_i + \beta_2 \text{AWP}_i + \beta_3 \text{BR1}_i + \beta_4 \text{BR2}_i \\ & + \beta_5 \text{NEWB}_i + \sum_{k=6}^{25} \beta_k D_{ik} + \epsilon_{ij}. \end{aligned} \quad (1)$$

- The dependent variable is the price range for the perscription
- The variable AWP is the drug's acquisition cost
- The terms BR1 and BR2 are dummies for two kinds of brand-name drugs: those that face competition from generic equivalentents and those that do not.
- The variable NEWB is a dummy variable for Newburgh
- The D variables are indicators for 20 categories of drug therapy

The result shows that the dispersion is negatively related to purchase frequency. The estimated effect of repeat purchasing is statistically significant for each of the alternative measures of absolute dispersion; accounting for pharmacy differences before measuring dispersion simply reduces the magnitude of the estimated effect of repeat purchases. This set of results predicts that the price range for a one-time purchase will be 22 percent larger than the range for a monthly prescription (other things being equal), as opposed to the 28 percent while search models generally predict that average absolute markups will depend negatively on search intensity, conclusions about the behavior of relative margins are not as clear.

The evidence strongly suggests that the dis-persion in prescription prices can be explained by costly consumer search.