Discussion on:

Relative Price Dispersion: Evidence and Theory

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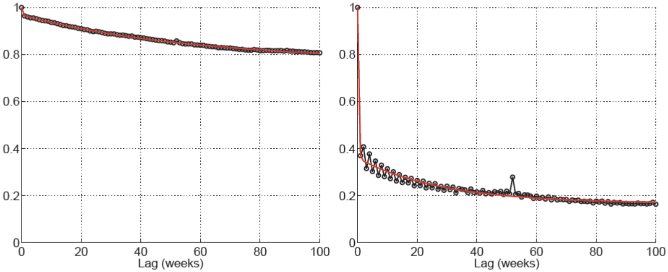
The paper

- Relative Price Dispersion: persistent difference in prices for the same good across shops, which is not explained by shop-specific average price
- Evidence: impressive dataset allows for detailed price decomposition

Figure 1: Autocorrelation function of prices



(a) Store component (b) Store-good component

Notes: The figure plots the empirical autocorrelation functions of the store and store-good components, $\hat{y}_st$ and $\hat{z}_{jst}$, together with their counterparts from the fitted statistical model.

$$\log p_{jst} \underbrace{- \frac{1}{S}\sum_{s=1}^{S} \log p_{jst}}_{\text{good}} = \underbrace{y_{st}^{P} + y_{st}^{T}}_{\text{shop}} + \underbrace{z_{jst}^{P} + z_{jst}^{T}}_{\text{shop-good}}$$

- Relative Price Dispersion: persistent difference in prices for the same good across shops, which is not explained by shop-specific average price
- Evidence: impressive dataset allows for detailed price decomposition
- Theory: extend a canonical model to account for relative price dispersion
    - model: Burdett and Judd (1983)
    - addition: shops sell *two* goods and try to discriminate *heterogeneous* buyers

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- Price dispersion (typ. temporal) is an equilibrium object defined by

$$\Pi(\bar{p}) = \{\alpha + 2(1-\alpha)[1 - G(p)]\}p$$

where $\bar{p}$ is the reservation price, $\Pi(\bar{p}) \equiv \alpha\bar{p}$ and $G(p)$ is the fraction of sellers with a price less than p.

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- If p is the av. price of a basket of goods, then RPD (indet.) even with $\alpha = 1$

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- To understand the importance of each assumption, let us see how far I can go without relying on the BJ model.

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C If cool cannot buy the good then go to the other shop

Simpler Game: strategies

$$\mathcal{B} : (p_b, p_b) \rightarrow \underbrace{0.5\,(0)}_{\text{revenues cool}} + \underbrace{0.5\,(2p_b)}_{\text{revenues busy}} = p_b$$

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crucial non-linearity: Given ass. H, $\mathcal{B}$ is strictly dominated by $\mathcal{D}$!

Payoff table

vs $\rightarrow$	$\mathcal{C}$	$\mathcal{D}1$	$\mathcal{D}2$
$\mathcal{C}$	$2p_c$	$2.5p_c$	$2.5p_c$
$\mathcal{D}1$	$0.5p_c + p_b$	$0.5p_c + p_b$	$p_c + p_b$
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With $p_b > p_c > \frac{2}{3}p_b$ only ($\mathcal{C}$,$\mathcal{C}$) is Nash.

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With $p_b > p_c > \frac{2}{3}p_b$ only $(\mathcal{C},\mathcal{C})$ is Nash.

Given ass. C, price dispersion has private (and social!) value!

Conclusion

- Important evidence on the persistence of price dispersion
- The new assumptions alone already buy the existence of equilibria with RPD
- BJ introduces indeterminacy without giving clear advantages
- `Beautiful and challenging agenda!`
  Huge literature on price discrimination in IO: how to properly incorporate these insights into the Macro literature?