The Price of Liquor is too Damn High: Alcohol Taxation and Market Structure

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Motivation – Alcohol Regulation

- Alcohol regulation as means to discouraging excessive consumption
  - Societal harms (crime, risky teen behavior, drunk driving) heterogeneous and dependent on consumption occasion
  - Aggregate consumption responds to price (but not much)
  - Some aggregate evidence that high prices (might) reduce societal harms

- Regulatory approaches to raising prices (& government revenue):
  - Ad-valorem and specific taxes
  - Market power in the supply chain (exclusive territories, PH laws)
  - State-run wholesale/retail; pricing akin to ad-valorem tax
    - Ignores preference variation for differentiated products, affecting state revenue and consumer welfare in aggregate and in distribution

This paper I: Theory & Descriptive Evidence

- PH laws and tacit collusion
  - Little unilateral incentive for distributors to undercut competitors
  - Price set by firm with lowest opportunity cost reflecting marginal cost and within-firm-portfolio cannibalization effects
- Empirical tests
  1. State-level consumption drops by 4-8% after abolition of PH regulations (but few policy changes)
  2. Prices in CT higher than surrounding states w/o PH
  3. Consumption in CT tilted toward lower priced products than in comparable MA
  4. For multi-distributor products, little to no variation in wholesale price

This paper II: Contrast PH with alternatives

- Descriptive evidence suggests:
  - PH raises price $\longrightarrow$ reduces consumption
  - ...but more so for inelastically demanded products $\longrightarrow$ affects product choice

- How large are product choice inefficiencies?
  - Estimate discrete choice model of demand for differentiated spirit products
  - Impose PH model's optimal pricing to find implied (constant) distributor MC
  - Contrast welfare under current system to perfectly competitive distribution system combined with ad-valorem or specific tax

- Results suggest that for given consumption, optimal ad-valorem tax generates tax revenue nearly equal to distributor profit and increases CS by about 8%.

Suggestions

- More detail on interaction between distillers and distributors useful
  - Single firm distribution common: for top 100 products,
    - Of 6,327 product months, 2,722 single distributor (43%)
    - Not affected by PH regulations $\longrightarrow$ what are these products? How are distribution decisions made by distillers?
  - Can we learn something about how close to monopoly pricing PH comes by comparing single and multiple distributor products (with obvious selection caveats)?
  - Are there changes in distribution networks by distillers over time to look at how wholesale price responds to number of distributors carrying product?

Suggestions II

- How does retail side work?
  - How do retail stores choose distributors?
  - How does minimum retail price law work that is relied on to calculated retail price in demand model? Is it binding?
- Analyses
  - (To me) tacit collusive aspects to price posting unique
    - Price set by firms with least cannibalization considerations.
      - How important is variation in product portfolios carried by distributors in affecting price, welfare?
      - How similar to single-firm multi-product monopoly pricing do we get with PH system?