Competition and Consumer Protection:
A Behavioral Economics Account

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Motivation

- When rational consumers form accurate (unbiased) perceptions of benefits and prices, competition promotes efficiency and protects consumers.
- But what if consumers are imperfectly rational and misperceive benefits and prices?
Outline

- Exogenous Misperceptions
- Endogenous Misperceptions
- Welfare Implications
- Policy Implications: Disclosure Regulation
Exogenous Misperceptions
Exogenous Misperceptions

- Framework of Analysis
  - Rational Choice Framework
    - Benefit: $B$
    - Price: $P$
    - Demand: $D(B,P)$
    - Revenue: $R(B,P) = D(B,P) \cdot P$
    - Profits: $\Pi(B,P,C) = R(B,P) - D(B,P) \cdot C = D(B,P) \cdot (P - C)$
Exogenous Misperceptions

- Framework of Analysis
  - Behavioral Economics Framework
    - Perceived Benefit: $\hat{B}$
    - Perceived Price: $\hat{P}$
    - Demand: $D(\hat{B}, \hat{P})$
    - Revenue: $R(\hat{B}, \hat{P}, P) = D(\hat{B}, \hat{P}) \cdot P$
    - Profits:
      $$(\hat{B}, \hat{P}, P, C) = R(\hat{B}, \hat{P}, P) \quad D(\hat{B}, \hat{P}) \times C = D(\hat{B}, \hat{P}) \times (P \quad C)$$
Exogenous Misperceptions

- Framework of Analysis
  - Comparison
    - Rational Choice Framework
      Profits: \( \Pi(B, P, C) = D(B, P) \cdot (P - C) \)
    - Behavioral Economics Framework
      Profits: \( (\hat{B}, \hat{P}, P, C) = D(\hat{B}, \hat{P}) \times (P - C) \)
Exogenous Misperceptions

Framework of Analysis

Two Tradeoffs

- Sellers want to increase B to increase D and R, but a higher B entails higher C.
  - Behavioral Model: Sellers can increase the perceived B and thus D, without incurring the cost of raising B.

- Sellers want to reduce P to increase D and R, but also to increase P to increase R.
  - Behavioral Model: Sellers can reduce the perceived P and thus increase D, without reducing P.
Exogenous Misperceptions

Framework of Analysis

- Sellers gain from the divergence between
  - Perceived and actual benefit, and
  - Perceived and actual price.
- Sellers will design their products, contracts and prices to maximize this divergence.
Exogenous Misperceptions

- Framework of Analysis
  - The Objects of Misperception
    - Product Attributes
    - Product Use (Use Patterns)
A Simple Example

Setup

- Credit Card
  - Used only for transacting. Balance paid in full each month
  - Forgetful consumer will miss the payment due date once

Issuer’s Costs:

- Fixed cost of 4
- Variable cost of 2 per incidence of late payment

2–Dimensional Price

- Annual Fee: P1
- Late Fee: P2
- Total Price: P1 + P2
Exogenous Misperceptions

A Simple Example

- Misperception
  - Sophisticated Consumer: Accurately perceives the total price to be $P_1 + P_2$
  - Naïve Consumer: Perceived Total Price is $P_1$

- Contract Design
  - Sophisticated Consumer: Efficient (4,2) contract ➔ Total Price = 6
  - Naïve Consumer
    - (4,2) contract ➔ Perceived Total Price = 4
    - (0,6) contract ➔ Perceived Total Price = 0
Endogenous Misperceptions
Endogenous Misperceptions

- Competition Can Lead to Mistake Correction
- Limits
  - Collective Action Problem (Beales, Craswell and Salop, 1981)
    - Solution: First-Mover Advantage
      - Physical Product
      - Contract / Pricing Scheme
  - Reduced Incentive to Disclose Product Use Information (Bar-Gill and Board, 2011)
  - Shrouding (Gabaix and Laibson, 2006)
  - Competition through Misperception (Glaeser, 2004)
Welfare Implications
When consumers are imperfectly rational, sellers design excessively complex products, contracts and pricing schemes
  ◦ Complexity hides the true cost of the product
  ◦ Complexity allows sellers to reduce the perceived total price of the product
Hindered Competition

- Complexity increases the cost of comparison shopping ⇒ Less comparison shopping ⇒ Less competition
- Imperfect rationality exacerbates the adverse effects of complexity on comparison shopping and on competition
- Effects of hindered competition
  - Distributional: Sellers gain, consumers lose
  - Efficiency: Consumers are not matched with the most efficient seller
Distorted Competition

- Pricing driven by salience, not by cost structure
- Distortion 1: Product Use
  - Result of deviation from cost-based pricing
- Distortion 2: Product Choice
  - Perceived Total Price < Actual Total Price
  - Artificially Inflated Demand
Policy Implications: Disclosure Regulation
Disclosing Product Use Information

- Most disclosure mandates focus on product attribute information
- But consumers also make a lot of product use mistakes
- Sellers should be required to disclose product use information
  - They often have better use information than consumers
  - They are less likely to voluntarily disclose use information
Designing Optimal Disclosure Mandates

- Simple Disclosures for Consumers
  - TCO disclosures, combining product attribute and product use information
    - With individual use information, when available
  - Examples
    - Cellphones
    - Consumer Credit – the APR disclosure
  - TCO disclosures
    - Help consumers figure out if benefits exceed costs
    - Facilitate comparison shopping
Designing Optimal Disclosure Mandates

- Comprehensive Disclosures for Intermediaries and Sellers
  - In electronic form
  - Facilitate the work of intermediaries
  - Level the playing field between current providers and their competitors

  See:
  - FCC, Notice of Inquiry: Consumer Information and Disclosure (2009)
  - Sunstein, Disclosure and Simplification as Regulatory Tools, Memorandum for the Heads of Executive Departments and Agencies (2010)
Conclusion
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- When consumers are imperfectly rational, we cannot rely on competition to guarantee efficiency and protect consumers
  - Behavioral Market Failure with potentially substantial welfare costs
- Optimally designed disclosure mandates can help.