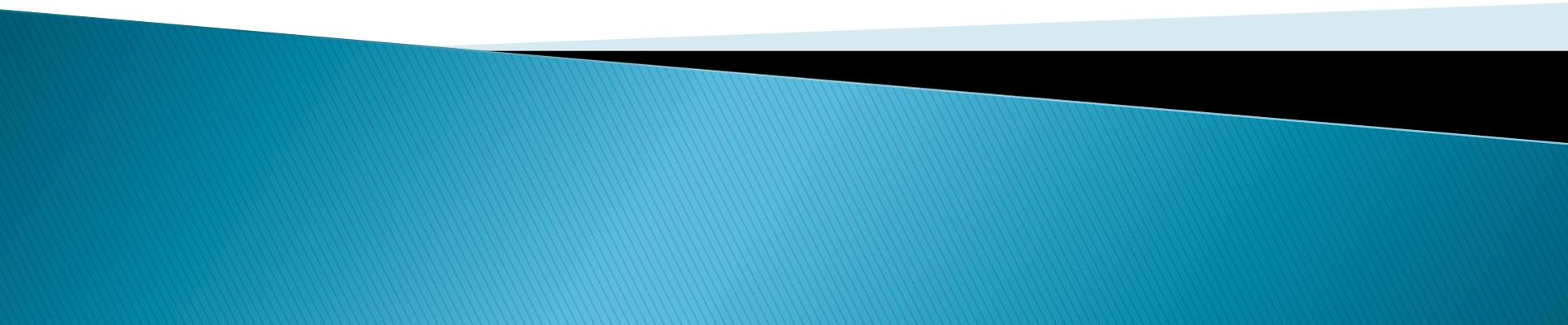


Competition and Consumer Protection: A Behavioral Economics Account

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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:

$$\Pi(\hat{B}, \hat{P}, P, C) = R(\hat{B}, \hat{P}, P) - D(\hat{B}, \hat{P}) \times C = D(\hat{B}, \hat{P}) \times (P - C)$$

Exogenous Misperceptions

▶ Framework of Analysis

◦ Comparison

- Rational Choice Framework

$$\text{Profits: } \Pi(B, P, C) = D(B, P) \cdot (P - C)$$

- Behavioral Economics Framework

$$\text{Profits: } P(\hat{B}, \hat{P}, P, C) = D(\hat{B}, \hat{P}) \times (P - C)$$

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)

Exogenous Misperceptions

▶ 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: P_1
 - Late Fee: P_2
 - Total Price: $P_1 + P_2$

Exogenous Misperceptions

▶ A Simple Example

◦ Misperception

- Sophisticated Consumer: Accurately perceives the total price to be $P1 + P2$
- Naïve Consumer: Perceived Total Price is $P1$

◦ 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

Hindered Competition

- ▶ 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

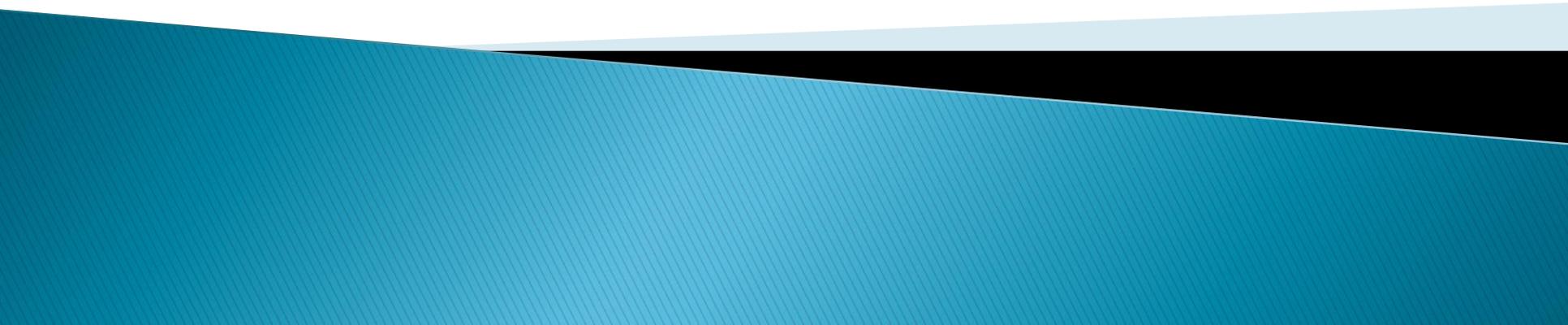
Designing Optimal Disclosure Mandates

- ▶ 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



Conclusion

- ▶ 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.