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THE ECONOMICS OF DECEPTION

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Outline

- What is a deceptive strategy?
- Economic views on deception
- What should policymakers do about it?
- Some evidence from telephone pricing

What is a Deceptive Strategy?

- You know it when you see it as in the case of:
  - Collusion (sometimes)
  - Pornography

What is a Deceptive Strategy?

- Learnings from the empirical literature on collusion: ***be cautious!***
  - Empirical identification is very weak and difficult
  - Results are many times inconclusive and depending on functional form assumptions

What is a Deceptive Strategy?

- Elements of a deceptive strategy:
  - Firms aim to profit from consumers' mistakes
  - The strategy must not be openly illegal
  - Gains should be small relative to the individual cost of denouncing the behavior of firms in court

What is a Deceptive Strategy?

- We are dealing with:
  - Numerous contract options
  - Fine print of legal contracts
  - Complex contract clauses or options
  - Unforeseeable circumstances common to any incomplete contract

Economic Views on Deception

- Market oriented (I):
  - Deception is another feature of the product to be purchased
  - Consumers trade off the possibility of deception with the expected savings of low priced products

Economic Views on Deception

- Market oriented (II):
  - Firms trade off the gains from using deceptive strategies with the potential cost in reputation and goodwill
  - Market will self-regulate faster when the cost of deception is higher

Economic Views on Deception

- Behavioralists (I):
  - Insist on consumers inclination to make mistakes:
    - Repeatedly
    - Systematically

Economic Views on Deception

- Behavioralists (II):
  - Biased expectations are taking as given and consumers are assumed not to be able to learn from experience, and if they do, they learn very slowly
  - The gains of deception are not transitory but permanent

Economic Views on Deception

- Behavioralists (III):
  - In the absence of learning, dynamics do not solve this market failure
  - Consumers need to be protected
  - Prone on regulating industry behavior

What should policymakers do about it?

- Your believe of how smart and responsible consumers are will dictate the policy:
  - Naïve Consumers – Paternalism – Regulation
    - Unintended consecuences?
    - Hidden intervention agenda?
  - Rational – Individual Responsibility – Do Nothing

Pro-Regulation

"There has been a lot of attention recently on the volatility in the subprime housing market. But the subprime fallout takes a toll on families as well. These are not just statistics, these are flesh and blood people who are so proud of that first home, who felt like they finally had a real foothold in the American middle class that they were going to have their children in a safer environment." (…)

Pro-Regulation

"But what if that family that we're trying to get into their home decides they will seek out a subprime loan? Well, we have to put ourselves in the shoes of a parent signing a mortgage product unaware of a complicated, escalating payment formula that has been worked out on some computer that has balloon payments and pre-payment penalties, which includes the cost of taxes and insurance, and other added on costs that the owner doesn't really understand and nobody takes the time to explain them. Clear and easy to understand disclosure, plain talk meant to inform, not to confuse must be the starting point. Buyer beware is just not enough." (…)

Pro-Regulation

“We need to expand the role of the Federal Housing Administration to issue more mortgages at better rates to these homeowners. We need to give consumers more counseling and information, prevent families from being trapped in high interest loans with pre-payment penalties and in some cases, allow more breathing room from foreclosure. ”

Pro-Regulation

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Senator **Hillary Rodham Clinton**'s Remarks on Subprime Lending to the National Community Reinvestment Coalition (15 March 2007).

Pro-Doing-Nothing

“Think about pricing. What has every telco in the world done in the past? It’s used confusion as its chief marketing tool (…) customers know that’s what the game has been. And that’s fine. (…) The Government is way too smart to do anything dumb here.”

Theresa Gattung. Former CEO of Telecom New Zealand (20 March 2006).

What should policymakers do about it?

- Plus, if consumers are really dumb, regulation might be killing profitable business opportunities that may solve the problem by themselves…

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Evidence

- The behavioral school has failed so far to present convincing evidence that consumers make systematic mistakes and that these mistakes are not related to the magnitude of the potential loss of not paying attention to choices
  - Experimental results
  - Casual observations
  - Do not meet minimum econometric standards

Evidence

- Are consumers so dumb?
  - The little I know from my research on tariff choices in fixed telephony does not support this view
  - I use the richest data set available with actual consumer choices, usage measurements in several dimensions and rich demographics
  - More importantly I observe repeated decisions

Evidence

- Choosing the Wrong Calling Plan? Ignorance and Learning, AER (2003).
  - Reduced form estimation
  - Conditional on observable demographics, consumers significantly switch tariff options in the very short run in order to minimize their monthly telephone bill
  - Amazingly, they respond to average potential savings of ***five dollars*** a month
  - Similar result found by Economides-Seim-Viard when consumers switch telephone carriers

Evidence

- Rational Attention and Deliberation Costs in a Repeated Decision Problem, WP (2004) – with Natxo Palacios-Huerta
  - Reduced form estimation
  - Conditional on observable demographics and individual history consumers do not appear to choose the wrong tariff for their usage for too long
  - The paper addresses a complex econometric issue and shows that ignoring state dependence may lead to wrong conclusions

Evidence

- The Role of Self-Selection, Usage Uncertainty and Learning in the Demand for Local Telephone Service, QME (2007) – with Sridar Narayanan and Pradeep Chintagunta
  - Structural estimation + Panel + Bayesian learning
  - The estimation allows to identify different speeds of learning depending whether consumers subscribed to the measured or to the flat tariff option as each one is more or less informative to the own subscriber
  - Consumers still switch tariffs to reduce monthly bills

Evidence

- What about confusing strategies?
  - Do we have too many options to choose from?
    - 2003 Medicare prescription drug benefit plans
    - Retirement plans
    - Health care providers
    - Loans and mortgages
    - Home, car, and life insurance
    - Tariff choices:
      - Cable/satellite
      - Utilities
      - Telecommunications

Evidence

- The Doubtful Profitability of Foggy Pricing
  - How do we define what is a confusing tariff option?
    - Are many options a symptom of fogginess?
    - Ratio of dominated to non-dominated tariffs
    - HHI analog measure for non-dominated tariffs?
  - Caveats:
    - What if consumer types are discrete?
    - What if consumers are uncertain about their future usage?

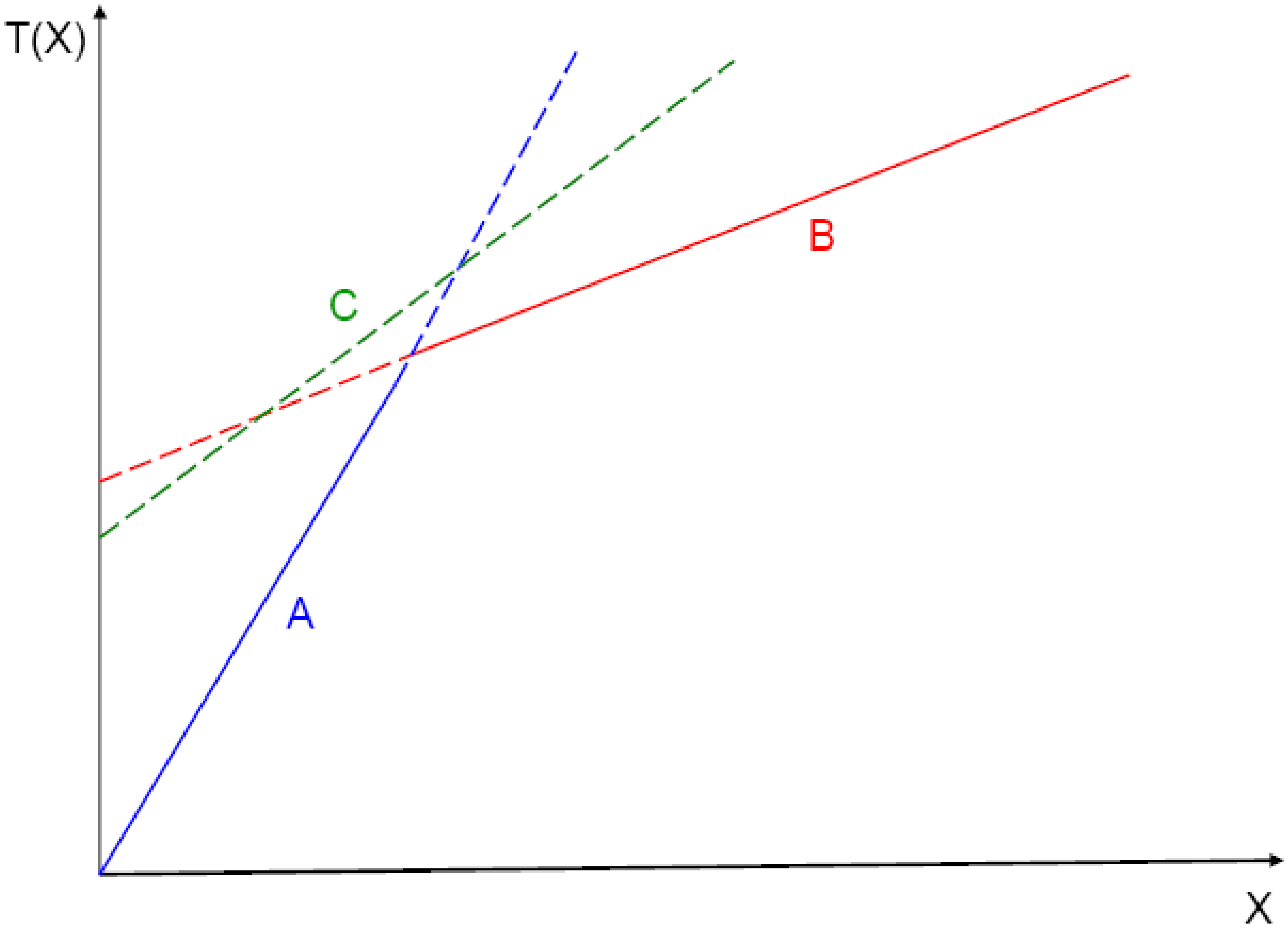
Evidence

- This paper addresses the issue of tariff complexity and studies whether the available evidence support one of the following two visions (broadly described):
  - Consumers encounter problems choosing the least expensive tariff option. Thus, firms will benefit by designing deceptive tariffs. Competition will only exacerbate this effect
  - Consumers end up learning what is best for them. Using deceptive pricing will only backfire through a loss of reputation. Competition will discipline firms pricing and tariffs will become simpler

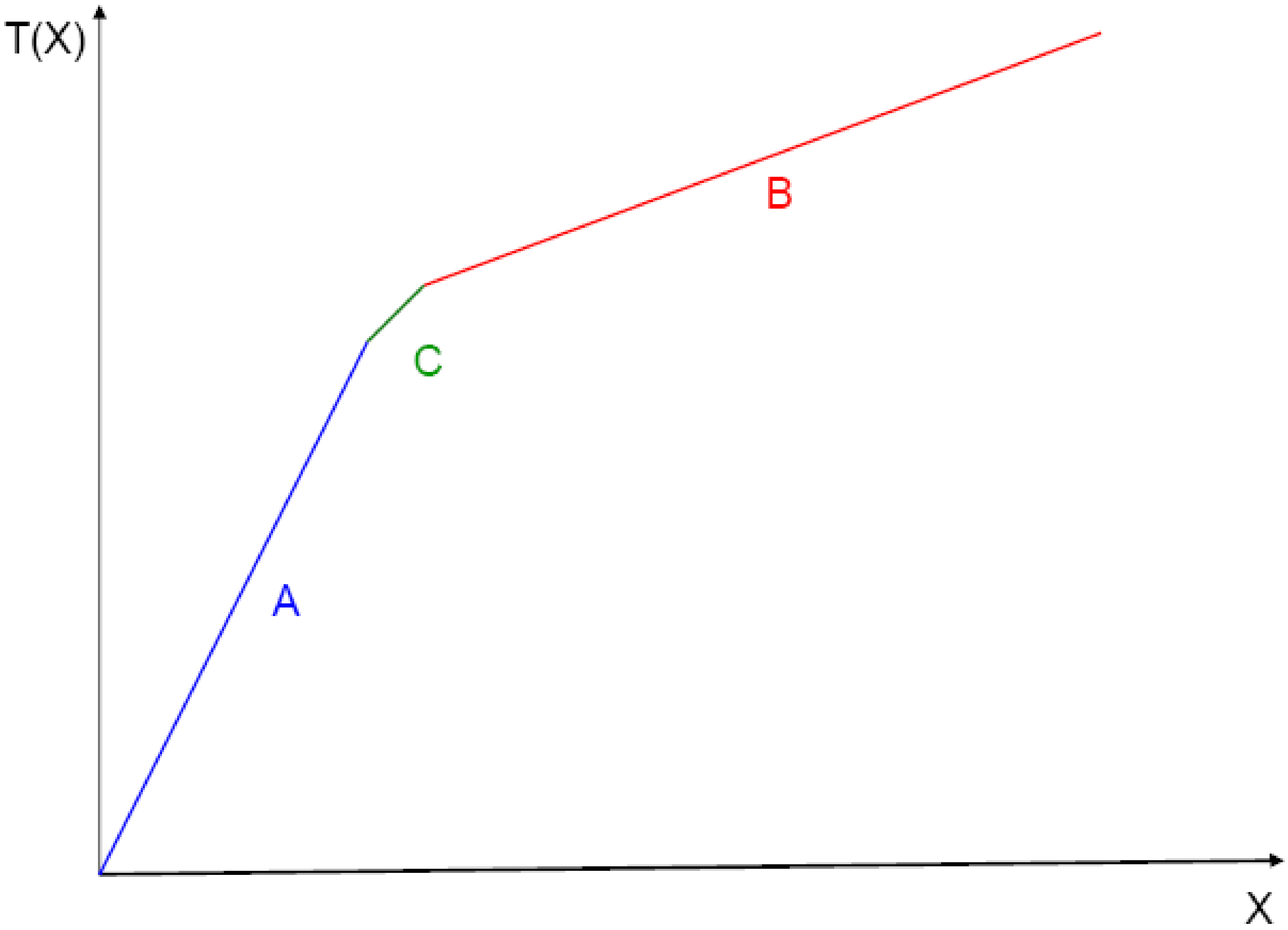
Data

- About 100 U.S. local cellular carriers (1984-1992).
  - Temporary monopoly of the *wireline* carrier in many markets
  - Exogenous entry of the *nonwireline* (second) operator.
- Largest SMSA markets
- Complete description of all tariff plans offered by the incumbent and the entrant:
  - Allowance, fixed monthly fee, and rate per minute during peak and off-peak time
- Complemented with data from:
  - Census, FBI, and U.S. HCN

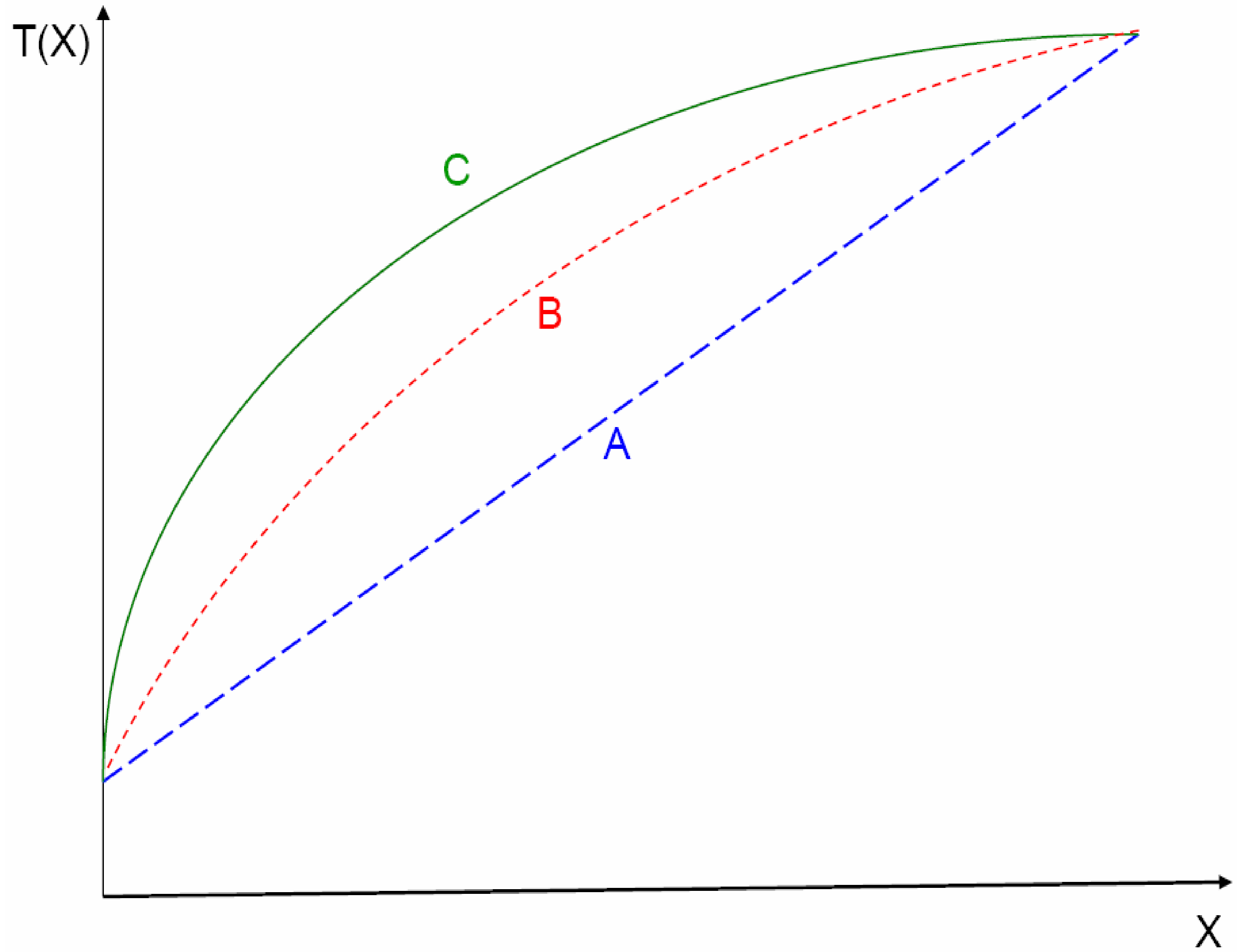
Fogginess: Dominated Options



Fogginess: Non-Dominated Options



Fogginess vs. Asymmetry of Information



Results

- Entry of a second cellular carrier accounts for:
  - 45% of the increase in the total number of tariff options
  - 55% increase in the number of effective tariff options
- Both firms increase their tariff plan offerings.
  - The increase in tariff options available is more important in large urban areas where we expect to find more heterogeneous consumers

Results

- Entry of a second cellular carrier also triggers:
  - A significant reduction of tariff fogginess
    - This result is robust to two alternative definitions of tariff fogginess
    - ***The reduction of fogginess is present in the short run but is more important in the long run***.
    - The entrant offers far simpler tariffs than the incumbent
  - Phasing-out of old tariff options does not explain why some current options are dominated