CS395T
Agent-Based Electronic Commerce
Fall 2003

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Week 4a, 9/16/03

Logistics

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  - Weber mainly for the idea

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- Any questions?

Some terms

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- Threats

Example

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	0	1	2
A	0	0	100
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C	0	40	40

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- What are B and C's rational bids?
- Illustrate mutually exclusive bids from different rounds

Demand Reduction

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- I'll be A, you be B
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- Demand reduction can be taken to an extreme.

Threats

- Bidder A winning license 37 for $1M.
- Bidders A and B competing for license 63.
- Simultaneously, bidder B bids:
  - licence 37: $1.1M.
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What's the threat?

Stopping Rules, Activity Rules

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- Close the core "big" licenses first and simultaneously, then the smaller ones separately.
  - efficiency on big licenses, speed after that.
- Simultaneous close, but require activity
  - Activity on a license: bid placed or previous high bid
  - Low activity lowers *eligibility*
  - Eligibility bounds what you can bid on
  - Activity requirements increase as time goes on

Example

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- Prevents *wait and see* strategy

Limits of theory (Milgrom, p.151)

- Identify variables, but not relative magnitudes
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  Bidders can be counted on to seek ways to outfox the mechanism — Milgrom p. 150 (top)

Used laboratory experiments too

Failure modes

- Dutch auction (top of p.27)
- Low competition, declining opening bids
- What went wrong?

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- What went wrong?
- Designated entities also didn't work

Combinatorial bidding

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- What's so hard?
  - 492 licenses $\Rightarrow > 10^{148}$ combinations.
- 700 MHz never happened

Human factors

- CEO allows fears to control strategy

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- Throwing good money after bad
  - German auction
  - Auction 35 (p.27,28)