Bilotical trade under asymatic info

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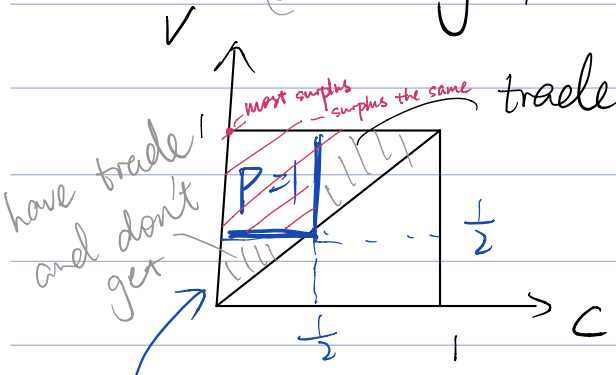
valuation are private info

- undirect machanism
- direct machanism (special type of)
- truthtelling is a dominant strategy.
- revelation principle
- incentive and IR cts ⇒ region in (C,V) space where trade occurs with prob 1, all traders must trade at same price

price not depend on (C,V)

3 Lemma ⇒ single price



trade ⇒ whether can get there ?

⇑

No.

$F(v) = v$

$G(c) = c$

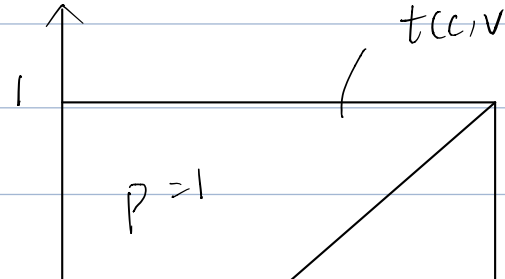
surplus

⇑

Second best ⇒ max expect gains from trade

└ lose half of all off trades.

why can't get the first best ?

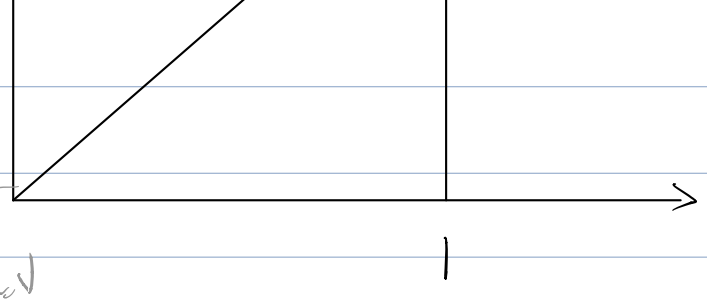


t(C,V) has to depend on reports.

traders have power on price

⇒ want to lie. (V↓, C↑)

⇒ lose trades



Suggest the diagonal $P = \frac{1}{4} = c = v$

traders have information of market power.

Seller: $M = 1$ — seller's cost is known $= c$

buyers $N > 1$ $[\underline{v}, \bar{v}]$ $\bar{v} > \underline{v}$

buyers' valuation are independently destributed identically.

$F(v)$ = common distribution function for over valuation.

$F'(v) = f(v)$ $f(v) > 0$ anywhere on $[\underline{v}, \bar{v}]$

$\underline{v} > c$ comman knowledge that gains from trade for m trades are > 0

[efficiency - good should go the highest valuation buyer.
[expected revenue

Auction

strategy space for buyers is to be submit a bid (real number) $\mathbb{R}_+$
as a function of the vector of submitted bid.
the rule of auction determine who gets the good.
and what everybody pays.

↳ static auctions

sealed bid.

equilibrium

dynamic auction

- ascending bid auction (English)
  - (know opponents' evaluation as processing)
  - strategy: which time to up
    - bid: not go up alit ... (money) and drop off.

- descending bid auction (Dutch)