

Industrial Organization

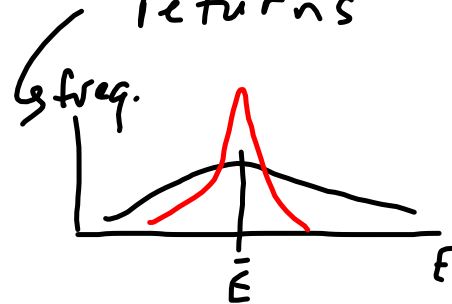
Structure

Conduct - Price, Output, Advertise,
Quality choice

Performance - π

- volatility } average return
& variance of returns

→ Monopoly - for a given demand - π highest
← complication



separate ownership & control

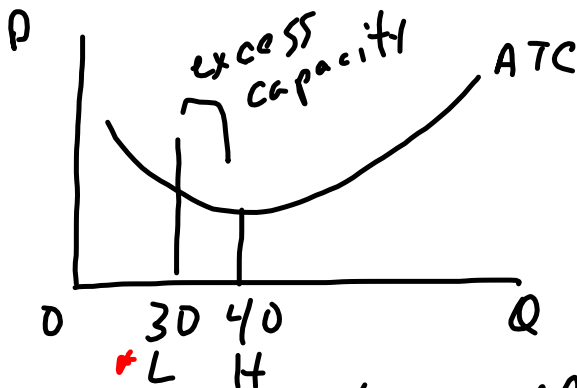
manager may choose max sales - volume discretion
" revenue - over spending

- entry - Monop Comp \rightarrow reduce Π s
limit $P = ATC$ so $\Pi = 0$
- Oligopoly - few firms
action \rightarrow response by other firms
 - collude preferred to limit
competition & max Π s
cartel result of collusion
 - agreement to not compete
 - agree on output
location
price } max Π

- cooperation hard to maintain
 - one period game \rightarrow prisoner's dilemma.
- repeated game -
- A + B - cheater - $\pi = 20 >$ cooperating 18
 payoff to cheating > 0
- strategy space \uparrow - choice in current period
 to choice in current period
 & response to other's previous
 decisions

Grim trigger strategy (Friedman)

\downarrow \downarrow
 commit response
 to high to previous
 forever output decision



excess capacity
is threat
Saudi Arabia.
- OPEC

is GT strategy effective
why do we cooperate?

Robert Axelrod - Evolution of Cooperation

- tournament - game theorists invited
to submit strategy for repeated

Anotul

PD game

Rappaport - tit-for-tat

if you cheat on me
I'll cheat on you on
one round & then
cooperate for future

2nd round 70 strategies

Anatol Rappaport - tit-for-2tats

30 & then if opponent does 40 2 times
then I do 40 for one round &

cooperating back to 30
behavior pays off

Facilitating practices - to ensure
cartel behavior

- signal a change in P or Q - in a way
that allows revision

- eg "dominant firm"

- advance notice of P or Q
change - if others make

same announcement → change happens

if not change is withdrawn.

eg Am. Airlines

GM

- leading firm - price maker

- "Most favored nation" clause MFN
- e.g. fuel suppliers to airlines
 - "I will not charge anyone else less than you"
 - Firm A - 20% of biz.
says "I want discount" - reject discount plea - resorting to MFN. in all contracts