

# MGE 302

## FINAL EXAM- Study Guide

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Lecture 4/23 & 4/28

### Chapter 8:

Market: is any arrangement that brings buyers and sellers together

Product Market: price brings buyers and sellers together

Labor Market: Have buyer (worker) and seller (employer) who are brought together by wage and providing service.  $\text{Hrs.} \times \text{wage} = \text{wL}$

Money Market: has buyers (who gets loan) and seller (sell loanable funds)

International Market: buyers and sellers internationally- price is determined by exchange rate

Four Markets:

Criteria to distinguish between markets:

1. Number and Size of the firm in market
2. Degree of product differentiation or type of product (ex: coke vs. Pepsi)
3. Entry and Exit in long run

**Perfectly Competitive Firm**: ex: agriculture, stock prices

"PRICE TAKER"<sup>o</sup>- output has no impact on price meaning no price strategy

--\*Perfectly Elastic Demand= NO Market Power

1. Many, Small firms
2. \*Homogenous/ Standardized products
3. No barriers to entry= long run profitability makes "ZERO ECONOMIC PROFIT"

**Monopolistic Competition**: ex: retail stores, hair salon

"PRICE MAKER/Setter" = has *Limited Market Power*- competitive and monopolistic

1. Many, Small firms
2. \*Differentiated products (not perfect substitutes)
3. No barriers to entry- long run profitability makes "ZERO ECONOMIC PROFIT"

**Monopoly**: ex: DMV, national grid,

"PRICE MAKER/Setter"= has *Substantial Market Power*

1. One, Large firm
2. \*Unique Products (gas, oil, diamond, drivers license)
3. BLOCKED entry- "POSITIVE ECONOMIC PROFIT"= "Mark-Up"

**Oligopoly**: ex: US airlines taking control of industry, Pepsi in soft drink industry

"PRICE MAKER/Setter" *Substantial Market power*

1. Few, relatively Large firms
2. \*Standardized (in perfectly comp. firm) or Differentiated Products (in monopolistic comp firm)
3. SUBSTANTIAL (big) BARRIER to entry- relatively difficult to get into (takes a lot of \$ money)

\*Mutual interdependence of Profit: Oligopoly uses: *Game theory*:

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Regulated Monopoly: "Natural Monopoly" that must be regulated

Marginal Cost Pricing: 1<sup>st</sup> best solution for customer, not possible because firm loses \$  $Lmc=P=D$

Fair Rate of Return: 2<sup>nd</sup> best solution- when company's breakeven and covers all owner supply and market supply resources- used when regulating monopoly ( $LATC=P=D$ ) when regulated, you decrease Q and increase P

Single price Monopoly: when monopoly charges single price only and doesn't discriminate

-Always INEFFICIENT because  $P > LMC$  always, causing "dead weight loss"

Price Discrimination- firms can charge different prices to different customer when cost of the item is exactly the same

Must have:

1. Market Power: monopoly, monopolistic competition, oligopoly
2. A way to identify customer- who will pay more or less --ex: in vs. out of state student
3. No Resale

### Chapter 10:

Oligopoly: a market structure in which a few firms are *strategically interdependent*

Strategically interdependent: produce dominant share of output in the market- oligopolies distinguishing characteristic. **\*\*cannot set price & quantities independently\*\***

-Few firms dominate the market

**\*Most distinguishing feature of Oligopoly**: "Interdependence of profit"- from strategic interdependence

### GAME OF COMPETITION vs. STRATEGY

- **\*Game Theory**: Used to analyze the behavior of firms- an approach to modeling the strategic interaction of oligopoly's in terms of moves and countermoves
  - o Game Theory Analyses: rules, payoff (listing of profit) and strategies ( should you increase or decrease price or should you even operate
- **\*Prisoners Dilemma**- a technique for obtaining conviction from criminals commonly used by government-- Plea bargaining (SNITCH) when firms engage in "Collusion"
  - o Used by firms during Plea bargaining
  - o **Chart**:
    - o Dominant Strategy: also known as "Nash Equilibrium" : a strategy that is best for a player no matter what strategy the other player chooses (**what normally breaks Cartels**) both confess- top left
      - The Outcome- "Nash Equilibrium": each player is taking the best action, given actions taken by other player
    - o Optimal Strategy: when both DON'T confess- bottom right

- Duopoly: prisoners dilemma- two firms in certain location
  - Implicit Agreement: agree not to advertise to save money for both firms indirectly (illegal)

Chart:

- **\*Cartel**: "joint profit" is the strongest form of collusion, an agreement by several firms/countries to obey output restrictions in order to increase their joint profits- *bunch of firms try to collude to act like a monopoly by setting prices - cartel have their own specific agreements*
  - need agreement to form a "cartel"
  - group of firms or countries come together & select a common price
  - Maximize Industry /cartel profit (not firm)
  - Illegal in US but maybe not in other countries
  - \*Production Quota: where firms come together to max their joint profit of the cartel  
*Production Quota= (Set Quantity / # of firms in cartel)*
- Two conflicting tendencies- lead to Cartel Breakdown
  - Incentive to Cooperate
  - Incentive to Cheat: if everyone does this it will flood the market=make customer happy but hurt business
  - EX: OPEC- oil producing export country                      South Africa/Russia- diamonds

Cartel Chart: ch 10 notes pg 7

- **\*Payoff Matrix**: a table showing the payoffs to each of the two players for each pair of strategies they chose