# Introduction to Law & Economics of Competition Law

#### Avinash S. Ganu

Advocate

B.Sc. LL.M. (Pune), LL.M. In International Economic Law (Warwick, U.K.)

#### Sayali Ganu-Dabake

Advocate LL.M. (Business Laws), M.B.L., PGDIPRL, LL.M. (Health & Media Laws)

### **Economic Analysis of Law**

#### **Economic Approach**

to

### Analysis of Law

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## **Competition – Market Economy** Market – many sellers and buyers Market elements Sellers / Producers Buyers / Consumers Goods

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### Market Economy Contd.

#### Self interest

- $\blacktriangleright$  Producer's interest  $\rightarrow$  Price Maximization
- Consumer's interest  $\rightarrow$  Utility Maximization (better product, lower price)
- Market enables exchanges of goods, services, information
- - → generate surplus for producers and consumers

#### **Perfect Competition Spectrum**

For free market economy  $\rightarrow$  concept of perfect competition

Perfect — Oligopoly — Duopoly — Monopoly / no Competition competition

Buyer's monopoly = Monopsony

#### **Demand & Supply Curve**



#### Consumer & Producer Surplus & dead weight loss



- $\mathbf{P}_{c}$  competitive price
- P<sub>m</sub> Monopolist's price
- Q<sub>c</sub> Quantity at equilibrium
- Q<sub>m</sub> Quantity by monopolist
- Below P<sub>c</sub>E Producer's surplus
- Above P<sub>c</sub>E Consumer's surplus
- Monopolist shifts this line to P<sub>m</sub>F
- Consumer surplus reduced by P<sub>m</sub>P<sub>c</sub>EF
- P<sub>m</sub>P<sub>c</sub>GF Transfer to Producer
- FGE deadweight loss

#### Perfect Competition Characteristics

Main Characteristics

8

- Large no. of buyers & sellers
- Homogenous products
- Every firm is 'price taker'
- No entry or exit barrier
- Consumer is fully informed

### **Perfect Competitive Market**

Economically optimal

9

- Sellers produce right amount of good  $\rightarrow$  Allocative Efficiency

Sellers produce at lowest cost

Sellers compete

by betterment of product

with innovation

 $\rightarrow$  Productive Efficiency

→Dynamic/Technological

Efficiency

#### **Imperfect Markets**

- Markets in reality are imperfect
- But they are self correcting (government intervention not needed)
- But if distortions are deliberate  $\rightarrow$  need to regulate/ intervene
- Monopolist's anti competitive conduct to be curbed
- As they abuse it for gaining/ maintaining monopoly
- Additional gains by 'Rent Seeking' used to maintain monopoly by unfair means
- Easy money makes monopolist inefficient
- No need for reducing production cost or innovation or betterment of product

#### **Market Structure**

Number of firms and their share
 Market share = proportionate to total quantity
 Market concentration

 Use of concentration ratios (CR) – Share of top 'n' sellers

2) Herfindahl-Hirschman Index (HHI)

#### Herfindahl-Hirschman Index (HHI)

- It is the sum of squares of market share of the participants in the market
  - Monopolist Market share 100% therefore  $HHI = 100^2 = 10,000$

Two firms - Market share 90% & 10%

therefore  $HHI = 90^2 + 10^2 = 8100 + 100 = 8200$ 

Ten firms - Each with 10% market share

therefore  $HHI = 10^2 + 10^2 + \dots (10 \text{ times}) = 1000$ 

#### Product

- Homogeneous, but in reality not same, similar
- Substitutability
- Elasticity = how responsive seller and buyer are to price change?
- Own price elasticity  $\rightarrow$  same product

(shoes of different companies; )

Cross elasticity = responsiveness of one good when price of another good changes →two substitutable products

(kerosene, coal; sugar, jaggery)



In production cost, normal profit is included

- Fixed cost
- Variable coast
- Average variable cost (AVC) proxy for marginal cost
- Average Total Cost (ATC)
- Marginal Cost extra cost for producing one extra unit
- Marginal Revenue extra revenue by selling one extra unit

#### Monopolists's price & output decision



guided by marginal cost and marginal revenue curves & their intersection.

- 'S' in competitive market
- 'MC' in monopoly

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#### **Lerner Index For Market Power**

L = (P - MC) / P

- L Lerner Index
- P Firm's price at firm's profit maximizing output
- MC Firm's marginal cost at firm's profit maximizing output
- L is zero means no market power
- L is one means monopoly

#### **Other Models**

Cournot competition – response by changing output – compete on quantity

Bertrand competition – firms choose process than output

Stakelberg leadership model – leader moves first, knows competitor's output level

- others follow, decide quantity

### **Questions?**

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