

### Main equations

Profit maximization →  $MR = MC$

Normal profit →  $AR = AC$

Supernormal profit →  $AR > AC$

Economic losses →  $AR < AC$

Revenue maximization →  $MR = 0$

Productive efficiency →  $MC = AC$

Allocative efficiency →  $MC = AR$

### Perfect competition

Perfect competition markets are those in which each firm has a small market share. They are powerless to determine price and they charge prices that are set by the market

#### CHARACTERISTICS

many buyers and sellers

Freedom of entry and exit

Perfect knowledge

Homogeneous products

Profit maximization

Firms are price takers

#### MAIN TERMS

**Marginal cost:** cost added by producing 1 extra unit of a product

**Average cost:** the average cost of each unit

**Average revenue:** the revenue gained per unit sold

**Marginal revenue:** increase in revenue from the sale of one extra unit

**short run**

**long run**

**Profit maximization:** earn maximum profit with low costs

**normal profit:** difference between total revenue and costs are equal to zero

**Supernormal profits:** excess profit a firm makes above the minimum return necessary

**Economic loss:** circumstances when individual or firm loses money

**Revenue max:** firm attempts to sell at a price that achieves the highest sales revenue

**Productive efficiency:** economy cant produce more of a good without sacrificing another good

**Allocative efficiency:** all goods and services are optimally distributed among buyers

### Monopolistic competition

Structure with many small firms selling similar products

#### ASSUMPTIONS

Large amount of small firms

No barriers

Large number of buyers and sellers

Product differentiation

Each firm has the same ability to set prices

### Monopoly

Monopolies are an extreme consequence of free-market economics and are often used to identify an individual that has complete or near-complete dominance of a market

#### CHARACTERISTICS

unfair edge over their competitors

High barriers to entry

Price makers

Economies of scale

#### ASSUMPTIONS

One dominant firm

Unique products with no close substitutes

High barriers

Price makers

Economies of scale

#### CAUSES OF HIGH BARRIERS

Economies of scale

Legal barriers (patents, copyright, licenses)

Control of resources

Aggressive tactics

### Risks of one or few dominant firms

lack of competition

Rigid prices

Higher prices

Reduced output

Reduced options for consumers

### Oligopolies

Market structure with small amount of firms and where each firm is interdependent, creating uncertainty

#### ASSUMPTIONS

Few dominant firms

Interdependent firms

Homogeneous or differentiated products

High barriers

Firms set prices

#### PRICE COMPETITION

Firms in oligopolistic competition participate in various price competitiveness strategies

price wars

Predatory pricing

Limit pricing

#### NON PRICE COMPETITION

Increase consumer appetite and develop brand loyalty

#### COLLUSIVE VS NON COLLUSIVE

**collusive:** agreement between firms to limit competition by restrictive trade practices;

**Non collusive:** These do not collude and act independently but are aware of other firms prices but not others decisions

#### FORMS OF COLLUSION

**Cartels:** An agreement between oligopolistic firms in the same industry to collude in fixing prices or to restrict the level of output in the market, thereby effectively acting as a monopolist.

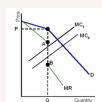
**Informal collusion:** Smaller firms could collude by following prices of larger firms. This limits competition and sets high prices

### Game theory

		Firm A	
		(\$1) high price	(\$0.5) low price
Firm B	(\$1) high price	\$3m    \$3m	\$0.5m    \$6m
	(\$0.5) low price	\$4m    \$0.5m	\$1m    \$1m

What a firm does if the other firm changes the price

### Kinked demand curve (non collusive)



This model assumes that there will be intervals of relative price stabilization under inflation. Firms will not follow if prices rise

### Government intervention to market power abuse

**Legislation:** used to prohibit things such as takeovers or mergers that can occur among firms which would end up giving one firm more than a certain percentage of the market share.

**Regulation:** markets setting up anti-monopoly commissions with the purpose of investigating markets and ensure that monopoly power is not being used against public interests

**Nationalization.** when a government takes control of a private sector industry in order to run it as part of the public sector for the best interests of the public

### Rational producer behaviour - profit max

**Profit maximization** refers to the level at which a firm will produce the greatest amount of profit this is the output level at which marginal costs equal marginal revenue.

#### EQUATIONS

TR - TC → Profit is maximum at the level of output where TR - TC is greatest

MR = MC → Profit is maximum at the level of output where MR = MC.

Abnormal profit → AR > AC

Normal profit → AR = AC

Losses → AR < AC

### Degrees of market power

**Market power** refers to the ability a firm has to increase its profits by setting a price that is higher than the marginal cost.

**Degree of market power:** The degree to which an individual firm is able to set prices will determine how competitive the market is

#### \*\*ADVANTAGES OF LARGE MARKET POWER

Economies of scale and investment

Research and development and innovation

The natural monopoly justification

Monopolistic corporations as agents of common good