Deira International School

IB DP 12 EC 1 Group 3 (IB1)

📒 Summary

2.3 Competitive market equilibrium

Subject	Year	Start date	Duration
Economics	IB1	Week 1, October	`1 week` 2 hours

Course Part

2. Microeconomics

Description

2.3 Competitive market equilibrium, you should be able to:

- Define the following terms: interdependence, feedback loop, negative feedback loop, positive feedback loop, market equilibrium, equilibrium price (market-clearing price), equilibrium quantity, excess demand (shortage), excess supply (surplus), excess demand (shortage), price mechanism, signalling function of prices, incentive function of prices, rationing function of prices, efficiency, productive efficiency, allocative efficiency, Pareto optimality, consumer surplus, producer surplus, social/community surplus, marginal social cost, marginal social benefit.
- Explain the concept of market equilibrium.
- Explain, using diagrams, how demand and supply interact to produce market equilibrium.
- Explain the concepts of excess demand and excess supply.
- Analyse, using diagrams, how changes in the non-price determinants of demand and supply result in a new market equilibrium.
- Explain the functions of price in a market: signaling, incentive and rationing.
- Explain the concepts of consumer surplus, producer surplus and social / community surplus.
- Draw diagrams to show consumer surplus, producer surplus and social/community surplus.
- Explain the concept of allocative efficiency.
- Calculate the value of consumer, producer and community/social surplus (HL).

🎓 Inquiry & Purpose

⑦ Inquiry / Higher Order Questions

Type	Inquiry Questions
`Skills-based`	• Can laws in economics, such as the law of demand and the law of supply, have the same status as laws in the natural sciences?

🔲 Curriculum

◇ Objectives

Application and analysis (AO2)

Analyse how economic information is used effectively in particular contexts

Use and application of appropriate skills (AO4)

Produce and use diagrams to help explain economic theory, concepts and real-world issues

📖 Syllabus Content

Unit 2: Microeconomics

Real-world issue 1: How do consumers and producers make choices in trying to meet their economic objectives?

2.3 Competitive market equilibrium

Demand and supply curves forming a market equilibrium

Diagram: market equilibrium

Shifting the demand and supply curves to produce a new market equilibrium, with reference to excess demand (shortage) and excess supply (surplus)

Diagram: showing changes in equilibrium/role of price mechanism

Functions of the price mechanism

Resource allocation

Signalling

Incentive

Rationing

Consumer and producer surplus

Social/community surplus

Allocative efficiency at the competitive market equilibrium:

social/community surplus maximized at equilibrium

marginal benefit (MB) equals marginal cost (MC)

Diagram: showing consumer surplus and producer surplus (social/community surplus)—maximized at competitive market equilibrium

Calculation (HL only): consumer surplus and producer surplus from a diagram

Real-world issue 2 - When are markets unable to satisfy important economic objectives—and does government intervention help?

Conceptual understandings

The market mechanism may result in socially undesirable outcomes that do not achieve efficiency, environmental sustainability and/or equity.

Market failure, resulting in allocative inefficiency and welfare loss.

Resource overuse, resulting in challenges to environmental sustainability.

Inequity, resulting in inequalities.

Governments have policy tools which can affect market outcomes, and government intervention is effective, to varying degrees, in different real-world markets.

Key concepts: scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence, intervention.

2.7 Role of government in microeconomics

Reasons for government intervention in markets

Influencing market outcomes in order to:

earn government revenue

support firms

support households on low incomes

influence level of production

influence the level of consumption

correct market failure

promote equity.

Main forms of government intervention in markets

Price controls: price ceilings (maximum prices) and price floors (minimum prices)

Indirect taxes and subsidies

Direct provision of services

Command and control regulation and legislation

Consumer nudges (HL only)

Diagram: showing the following measures and the possible effects on markets and stakeholders

Price ceiling (maximum price)

Price floor (minimum price)

Indirect tax

Subsidy

Calculation (HL only): the effects on markets and stakeholders of:

price ceilings (maximum prices) and price floors (minimum prices)

indirect taxes and subsidies.

Government intervention in markets—consequences for markets and stakeholders

2.8 Market failure—externalities and common pool or common access resources

Socially optimum output: marginal social benefit (MSB) equals marginal social cost (MSC).

(MSB = MSC): allocative efficiency; social/community surplus maximized

Positive externalities of production and consumption and welfare loss

Merit goods

Negative externalities of production and consumption and welfare loss

Demerit goods

Common pool resources

Characteristics: Tragedy of commons, rivalrous but non-excludable

Unsustainable production creating negative externalities

Diagram: allocative efficiency

Diagram: showing market failure due to:

negative externalities of production

negative externalities of consumption

positive externalities of production

positive externalities of consumption.

Calculation (HL only): welfare loss from a diagram

Government intervention in response to externalities and common pool resources including:

Indirect (Pigouvian) taxes

Carbon taxes

Legislation and regulation

Education—awareness creation

Tradable permits

International agreements

Collective self-governance

Subsidies

Government provision

Diagram: showing government responses to externalities

Indirect (Pigouvian) taxes

Carbon taxes showing effects on the market of a particular polluting industry

Subsidies

Legislation and regulation

Education

Strengths and limitations of government policies to correct externalities and approaches to managing common pool resources including:

challenges involved in measurement of externalities

degree of effectiveness

consequences for stakeholders

Importance of international cooperation

Global nature of sustainability issues

Challenges faced in international cooperation

Monitoring, enforcement

2.9 Market failure—public goods

Public goods

Non-rivalrous, non-excludable

Free rider problem

Government intervention in response to public goods

Direct provision

Contracting out to the private sector

2.10 Market failure—asymmetric information (HL only)

Asymmetric information

Adverse selection

Moral hazard

Responses to asymmetric information

Government responses: legislation and regulation, provision of information

Private responses: signalling and screening

2.11 Market failure—market power (HL only)

Perfect competition–many firms, free entry, homogeneous products

Monopoly—single or dominant firm, high barriers to entry, no close substitutes

Imperfect competition

Oligopoly—few large firms, high barriers to entry, interdependence

Monopolistic competition—many firms, free entry, product differentiation

Rational producer behaviour—profit maximization (HL only)

Total revenue - Total costs (TR -TC)

Marginal cost = Marginal revenue (MC=MR)

Abnormal profit (AR > AC)*

Normal profit (AR = AC)*

Losses (AR < AC)*

* AR = Average revenue, AC = Average cost

Calculation (HL only): profit, MC, MR, AC, AR from data

Degrees of market power

Meaning of market power

Perfect competition—no market power—firm as price taker

profit maximization:

in the short run

in the long run

Meaning of allocative efficiency, necessary conditions

Imperfect competition—varying degrees of market power—firm as price maker

Diagram: perfectly competitive firm as price taker where,

*P = D = AR = MR

Diagram: perfectly competitive firm showing:

abnormal profit

normal profit

losses

Diagram: equilibrium in perfectly competitive market with reference to allocative efficiency when P = MC or MB = MC, maximum social/community surplus.

*P = Price, D = Demand

Monopoly

Profit maximization

Allocative inefficiency (market failure)

Welfare loss in a monopoly in comparison with perfect competition due to restricted output and higher price

Natural monopoly

Diagram: market power where AR > MC

Diagram: monopolist showing:

abnormal profit

normal profit

losses

Diagram: price/quantity comparison of a monopoly firm with a perfect competitive market. Also showing welfare loss under the monopoly.

Diagram: natural monopoly

Oligopoly

Collusive versus non-collusive

Interdependence, risk of price war, incentive to collude, incentive to cheat

Allocative inefficiency (market failure)

simple game theory payoff matrix

Price and non-price competition

Measurement of market concentration – concentration ratios

Diagram: collusive oligopoly acting as a monopoly

Monopolistic competition

Profit maximization:

in the short run

in the long run

Less market power due to many substitutes—more elastic demand curve compared with monopoly

Allocative inefficiency (market failure)

Less inefficiency, more product variety

Diagram: monopolistically competitive firm showing:

abnormal profit

normal profit

losses

Diagram: monopolistic competition (with a more elastic demand curve compared to a monopoly)

Advantages of large firms having significant market power, including:

Economies of scale including natural monopolies

Abnormal profits may finance investments in research and development (R&D), hence innovation

Risks in markets dominated by one or a few very large firms

Risks in terms of output, price, consumer choice

Government intervention in response to abuse of significant market power

Legislation and regulation

Government ownership

Fines

2.12 The market's inability to achieve equity (HL only)

Workings of free market economy may result in an unequal distribution of income and wealth

Diagram: showing the circular flow model to illustrate why the free market results in inequalities

Inquiry—possible areas to explore (not an exhaustive list)

The impact of a price floor or price ceiling in a chosen market.

The impact of a government policy to correct market failure resulting from externalities.

How different communities approach the managing of a common access resource.

The impact of a price war or of price fixing on stakeholders of a selected industry.

The risks of increasing monopoly power and abuse in a selected industry (for example, technology).

Examples of government intervention in response to abuse of market power.

How government intervention to correct a market failure (other than externalities) affects different stakeholders.

How a country's economy could thrive without depending on the overuse of finite resources and still meet people's needs.

Theory of knowledge questions

What knowledge criteria should government policy makers use to make choices between alternative policies?

The idea of environmental sustainability suggests that people should avoid destroying resources today so as not to penalize future generations. Is it possible to have knowledge of the future?

Microeconomic theory is based on the assumption of rational consumer choice and rational self-interest. Yet the principle of collective self-governance suggests that people also behave cooperatively. What assumptions do economists make about the roles of reason and emotion? Are these assumptions justified?

How can we know when a problem is sufficiently large to justify government intervention?

💡 Concepts

Welfare is maximized if **allocative efficiency** is achieved

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📑 ATL Skills

👤 Approaches to Learning

⚙️ Thinking

- In this unit, we will

    give students time to think through their answers before asking them for a response

    reward a new personal understanding, solution or approach to an issue

👤 Developing IB Learners

☆ Learner Profile

Knowledgeable

Communicators