Economic Efficiency

A2 Economics

Basic Economic Problem

- Refers to the concept of limited resources and unlimited wants
- Since there are limited resources available to any economy it is very important to make the best possible use of these resources which brings us to the concept of economic efficiency.

- Economic Efficiency is the best possible use of resources and therefore it is the best solution of basic economic problem.

Choice and Opportunity Cost

- The best possible solution of basic economic problem is economic efficiency.

- Basic Economic Problem – Choice – Opportunity Cost

- Opportunity Cost is the benefit of the next alternative forgone.

Relationship between Basic Economic Problem and Economic Efficiency

- Whenever there are limited resources you want to make the best possible use of resources which is known as economic efficiency.

What is Efficiency?

- Efficiency is simple measure of output per unit of input which is calculated as follows:

Output / Input = Output per unit of input

Economic Efficiency

- Economic Efficiency refers to the idea of making best possible use of resources.
- Economic Efficiency is made up of 2 parts namely productive efficiency and allocative efficiency. Together these 2 components make up economic efficiency.

1. Productive Efficiency: is when a company makes a product at the lowest possible cost.
2. Allocative efficiency: is when you produce the goods in the right quantities that yield the highest level of satisfaction to consumers. Or producing the goods that are most wanted.

Allocative Efficiency – PPC

- PPC is a graph that shows the maximum output that country can products in terms of 2 goods.
- Any point within the PPC will be Allocatively Inefficient because the country is not making full use of its resources.
- Any point on the curve is Allocatively Efficient since economy is making full use of its resources.

Productive Efficiency - Graphs

- If a business is operating on the lowest possible ATC curve then the business is productively efficient otherwise not.
- Any point on the lowest possible ATC curve is productively efficient however the lowest point of the lowest possible curve is known as Technically Efficient.

Allocative Efficiency – Graphs

- Where price is equal to marginal cost that is the level of allocative efficiency. Anything more than this output is inefficient and anything less than this output is also allocatively inefficient.
- Only at the level of P = MC is allocatively efficient output level.

Marginal Cost

- Marginal cost is the cost of producing one more unit of good

Market Failure

- What is market failure?
- Absence of economic efficiency is known as market failure example monopoly, externalities, demerit and merit goods etc.
- Whenever there is a market failure the government will intervene to correct the situation of market failure.

Economic Efficiency	No Economic Efficiency / Market Failure
Perfect Competition	Monopoly
	Externalities
	Unequal Income distribution
	Information Asymmetry
	Demerit Goods / Merit Goods
	No provision of Public Goods

Perfect Competition

- It is a model that serves as benchmark for economic efficiency.

What is Perfect Competition

- Perfect competition is a market in which following characteristics exist:

1. A lot of buyers and sellers of the product
2. No barriers to entry and exit
3. Complete information with consumers
4. Firms are price takers – no single firm can influence market prices
5. All firms sell identical products / homogenous products – no element of branding

Important Terms

- **Entry Barriers:** is any constraint / hindrance that prevents new firms from entering the industry. For instance

1. **High Investment requirement:** the finance needed to set up a new business in any industry.
2. **Patents / Copyrights:** the legal protection against the theft of any product or idea.
3. **Well established brands:** the existence of well established brands in any market will deter new firms to set up in that industry.

Exit Barrier

- Sunk Cost: refers to the loss of investment in case of resale of assets at the time of firm quitting from the industry.

Example of Perfect Competition

- Agricultural products like fruits and vegetables that are produced by large number of farmers are sold at the exact same price by all the product retailers.

Perfect Competition – Graph Analysis

- Firms in PC are always allocatively efficient since their profit maximization quantity (MC = MR) is the same as the allocatively efficient level of output (MC = P).
- Firms in PC are also productively efficient because the level of competition in the market is intense no firm can afford to operate without being producing on their lowest possible ATC.

Monopoly

- Monopoly is a market where there is single producer.
- But sometime we make the definition a little more flexible and it means that monopoly can be any business with very high market share especially if it is 50% or more.

Assumption – Monopoly

1. Single Producer or one producer with very high market share
2. High barriers to entry and exit – which is the reason why there is single producer in the market
3. The firm is price maker – meaning the firm can set whatever price it wants to since there is no rival firm.

Monopoly – Graph Analysis

- Monopolist will not be allocatively efficient because it produces less than its allocatively efficient level.
- Because there is no competition the monopolist will not try to reduce its costs and so will not be productively efficient.

Solutions for Monopoly

1. Anti-monopoly investigation against businesses that intend to undergo take-overs and mergers. Competition Commission of Pakistan is the regulatory body that is responsible for such investigations.

2. Creating more incentives for new firms to enter the market by reducing some major entry barriers. For instance by providing interest free loans, subsidies etc.

Externality

- Any economic transaction that has positive or negative effect on the 3rd party.
- Simple example of negative externality would be cars emitting harmful gases in the environment
- Simple example of positive externality would be planting a tree, getting vaccinated against transferable disease and providing free ride to others.

Social Costs and Social Benefits

- Social Benefit = Private Benefit + External Benefit / Positive Externality
- Social Cost = Private Cost + External Cost / Negative Externality

Negative Externality

- Because consumers do not directly need to pay for goods that cause negative externality hence they will overconsume the good. For instance people overuse cars etc.

- Solution for Smoking:

1. Regulations like no smoking in public areas, no under-age sale
2. Imposing indirect taxes to make the product expensive so that less people consume it.
3. Awareness Campaigns: to discourage people from smoking

Positive Externality

- Goods with positive externalities will be under-consumed.

How to discourage Negative Externalities ?

- Imposition of indirect taxes will discourage people to consume the product that will become more expensive as the result.

- Creating awareness
- Create awareness like how much beneficial are trees to the environment

How to encourage Positive Externalities?

- Provides subsides

Subsidies are financial payments made by the government to producers of certain products. Since subsidies reduce the price people will consumer more of the product.

Unequal Income Distribution

- When the distribution of income is quite unequal in a country, some people are able to afford everything (almost) while others are hardly able to meet basic necessities.

How can government control unequal income distribution?

1. Use *progressive or proportional taxation*
2. Redistribute income through *transfer payments*

What is Progressive Taxation?

- Progressive taxation is higher the incomes, higher the tax rate. It is more of a burden on rich people.
- Proportional taxation is a fixed tax rate which is regardless of the amount of income earned. More of a burden on rich people.
- Regressive Taxation: it is an indirect tax that is imposed on consumption. Such taxes like GST (general sales tax) is more of a burden on poor rather than rich people.

Direct Taxes versus Indirect Taxes

- Direct Tax is anything that is imposed on income, wealth or property.
- Indirect Tax is any tax imposed on consumption like GST (General Sales Tax), VAT (Value Added Tax).

- Direct Taxes are either progressive or proportional.
- Indirect Taxes are regressive.

Transfer Payments

- Transfer Payments are financial payments made by the government to poor or disadvantaged people. Eg

1. Unemployment Benefit: certain amount of financial compensation is paid to people who are unemployed.
2. National Income Support Program: it is financial support provided to poor families.
3. Child Support Program: financial support provided to families with small children
4. Relief Payments: any financial support provided during natural disasters, plan crash etc.
5. Providing public education and health care: it is important that government support poor through cheap schools and hospitals

Information Asymmetry

- When one party has more information compared to the other party in the transaction.
- Information Asymmetry results in following 2 problems:

- Adverse Selection: since it is more likely that people with high risk will buy insurance therefore insurance companies are likely to make a loss.
- Moral Hazard: people are likely to adopt more risky actions like driving fast etc if they have bought car insurance.

Adverse Selection

- More risky customers are more likely to buy insurance compared to less risky customers and so insurance companies will make losses because of this.
- Adverse Selection refers to businesses choosing wrong type of customers that prevent them from making profit.
- Or Adverse Selection is when any market participant makes poor decision due to limited information.

How can government control the problem of adverse selection and moral hazard?

- To reduce insurance companies risk the best strategy is to make it compulsory for all people to buy insurance.
- To make necessary regulations to avoid one party cheating the other.

Competition is an essential element of an efficient market economy. If there is a monopoly then there is no competition. Monopolies exist in all economies and, therefore, all economies must be inefficient.' Discuss this opinion. [25]

- Define Economic Efficiency

1. Productive Efficiency – Definition and Graphs
2. Allocative Efficiency – Definition and Graphs

- Explain the concept of perfect competition and ideally it should be done with the help of graphs
- What is a monopoly and why it does not have economic efficiency?

- Yes all economies have monopolies but government tries to control these monopolies by making regulation like limit on the price that these monopolies can charge to consumers and by injecting more competition in the market. Just because there are few monopolies in an economy you can't really say that the entire economy is inefficient.

‘*Free markets* make the most *efficient* use of resources and are the foundation of a successful economy.’ To what extent do you agree with this? [25]

- *Define Economic Efficiency*

1. *Productive Efficiency – Definition and Graphs*
2. *Allocative Efficiency – Definition and Graphs*

- Explain the concept of perfect competition and ideally it should be done with the help of graphs
- What is a monopoly and why it does not have economic efficiency?

Yes free markets are efficient most of the times but not always because there can be cases of market failure like monopolies, externalities, unequal income distribution and information asymmetry. As long as government is able to control these market failures through appropriate regulations then the markets will be efficient otherwise not.

Explain what is meant by '***market failure***' and consider

how far government intervention can reduce market

failure. [25]

- Define Economic Efficiency – without graphs
- Define Market Failure – absence of economic efficiency is known as market failure.
- Cases of market failure – monopolies, externalities, unequal income distribution, information asymmetry, merit / demerit goods

- Comment on how government controls these market failures
- Conclusion – to large extent government is able to control market failure but not always because sometimes government has limited information and resources to make most effective strategies.

Pareto Efficiency

A2 Economics

Definition

- Pareto Efficiency refers to allocation of resources when no one can be made better off without making someone else worse off.
- Productive Efficiency is necessary and sufficient condition for Pareto Optimality or Pareto Efficiency. Hence Allocative Efficiency is not necessary condition for Pareto Efficiency.

Definition

- Economy operating on production possibility curve is said to be Pareto Efficient. Any point on production possibility frontier will be Pareto Efficient but it may or may not be Allocatively Efficient.

Allocative Efficiency versus Pareto Efficiency

- Allocative Efficiency is said to exist when combined utility of economy's citizens is maximum.

Allocative Efficiency versus Pareto Efficiency

- For instance to maintain more dominant political position it might be in economy's interest to divert its resources away from consumer goods to manufacture more of military goods. But because higher taxes on certain individuals will adversely affect their wellbeing; therefore there might be margin for Allocative Efficiency even when the economy is already Pareto Efficient.

Allocative Efficiency and Pareto Efficiency

- Unlike Allocative Efficiency that advocates for achievement of more equal income distribution Pareto Efficiency does not make any statement regarding equality or socially just distribution of resources.
- When a wealthy person is taxed to increase the income of less-privileged individuals then even while assuming that rise in utility of poor will be greater than fall in utility for the rich individual will cause Pareto Inefficiency.