Ambo University Woliso campus

School of Business and Economics

Department of Economics

Course Title: ***Public Finance & Fiscal Economics***

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Target group: ***Economics*** Instructor: Bekele A.

Chapter One

- What is Public Finance?
- Why Public Finance is needed?
- What is public spending? Types?
- Public finance Vs Private Finance
- Importance of Public finance
- How it affects the economy

Definition of Public Finance?

- Public Finance, field of economics concerned with how governments raise money, how that money is spent, and the effects of these activities on the economy and on society.
- Public finance studies how governments at all levels (national, state, and local) provide the public with desired services and how they secure the financial resources to pay for these services.

What Is Public Finance?

- Spending and taxation by the government form a large portion of the nation's total economic activity.
- E.g. Total gov't spending in the US equals about 40% of the nation's GDP whereas Ethiopia about 75% by 2007.

Why Public Finance Is Needed?

- Governments provide public goods and services such as roads, military forces, lighthouses, and street lights.
- Private citizens would not voluntarily pay for these services, and therefore businesses have no incentive to produce them.

Why Public Finance Is Needed?

- To correct a spillover, governments can encourage or restrict certain activities.
  - For example, governments can sponsor recycling programs to encourage less pollution, pass laws that restrict pollution, or impose charges or taxes on activities that cause pollution.
- To provides government programs that moderate the incomes of the wealthy and the poor.

Why Public Finance Is Needed?

- These programs include social security, welfare, and other social programs.
  - For example, some elderly people or people with disabilities require financial assistance because they cannot work.
- To redistribute income by collecting taxes from the wealthier citizens to provide resources for their needy ones.
- The taxes fund programs that help support people with low incomes.

Public Spending

- Each year national, Provincial, and local governments create a budget to determine how much money they will spend during the upcoming year.
- The budget determines which public goods to produce, which spillovers to correct, and how much assistance to provide to financially disadvantaged people.
- The chief administrator of the government such as the prime minister, governor, or mayor, proposes the budget.

Public Spending…..

- The legislature—such as the parliament, Provincial council, or Municipality council ultimately must pass the budget.
- The legislature often changes the size and composition of the budget, but it must not make changes that the chief administrator will reject and veto.
- Government spending takes two forms:
  - ✓Exhaustive spending
  - ✓Transfer spending.

- Exhaustive spending: refers to purchases made by a government for the production of public goods.
- For example, to construct a new Dams the government buys and uses resources from the economy, such as labor and raw materials.
- Transfer spending; when government transfers income to people to help them support themselves.
- Transfers can be one of two kinds: Cash or in-kind.
- ✓ Cash transfers are cash payments, such as social security checks and welfare payments.
- ✓ In-kind transfers involve no cash payments but instead transfer goods or services to recipients. Examples of in-kind transfers include food stamp coupons and Medicare.

Public vs Private Finance

- Similarities:
  - ❖Have an objective => satisfying human wants.
  - ❖Try to secure maximum advantage or benefit.
  - ❖Obtain borrowings from the market when their expenditure exceeds their revenue.
  - ❖Can engage in those activities involved a lot of purchases, sales and transactions.
  - ❖Both have unlimited want.
  - ❖Face the problem of adjustment of income and expenditure.

Public vs private Finance

- Dissimilarities:
  - individual tries to adjust his expenditure to his income WHEREAS gov't determines its expenditure first and devises ways to raise the required revenue to meet its expenses.
  - Resources are more limited for private sector than public sector.
  - Private sector cannot use coercive methods to raise its revenue but gov't can do.
  - Individual tries to keep his accounts secret as he does not want his competitors to know his real financial position WHEREAS Public finance is an open affair .

Cont'd…..

- private individuals incur expenditure in those areas of business which give quick returns(in view short-term considerations).
- WHEREAS government incurs expenditure keeping in view the long-term considerations, such as construction of dams, multi purpose hydro-electric projects, etc.(financial return is uncertain)
- Motive of Expenditure: individuals for benefit (π) WHEREAS government for social benefit(welfare).

Significance of Public Finance:
i. Economic significance

- ✓Capital formation
- ✓Economic stabilization
- ✓Full employment
- ✓Balanced Regional Development
- ✓Reduction in Economic Inequalities
- ✓Mobilization of Resources
- ✓Optimum Utilization of Resources

ii. Social significance

- Adopting a rational fiscal policy, such as taxation and public expenditure.
- producing goods of mass consumption to make available cheap goods to the people.

iii. Satisfaction of Social Wants

Wants are divided in to three heads:

- Private Wants: Degree of satisfaction depends upon individuals' incomes.

e.g. wants for house, cloth, recreation, etc.

- **Social (Collective) Wants:** wants equally available for all people regardless of their income level.

e.g. defense, education, public health, flood control provisions.

- **Merit Wants:** are essential private such as food, clothing, housing etc, which are satisfied by the government at low prices for the poor due to their low level of income.

e.g. Condominium, Free education for poor,

Old age pensions and social security

How Public Finance Affects the Economy?

- Government spending and taxation directly affect the overall performance of the economy.
  - *For example, if the government increases spending to build a new highway, construction of the highway will create jobs. Jobs create income that people spend on purchases, and the economy tends to grow.*
- The opposite happens when the government increases taxes. Households and businesses have less of their income to spend, they purchase fewer goods, and the economy tends to shrink.

What is the Role of Government?

- To maintain and improve the welfare of the people
  - To protect the people from harm
  - To provide the institutions that allow market to function (e.g. protection of property rights)
  - To provide the essential goods and services that markets fail to adequately provide

Fiscal Policy

- A government's fiscal policy is the way the government spends and taxes to influence the performance of the economy.

- **"Ask not what your country can do for you; ask what you can do for your country."**

Thank you

Chapter Two

2. The Theory of Public Economy

The Theory of Public Economy

- To include society’s value of commodities under alternative resource allocations directly involves **welfare economics**
  - ✓ Study of all feasible allocations of resources for a society
  - ✓ Establishment of criteria for selecting among these allocations
- What are the desirable ends?
  - ✓ To maintain and improve the welfare of the people
- Need systematic framework to assess the desirability of various government actions.

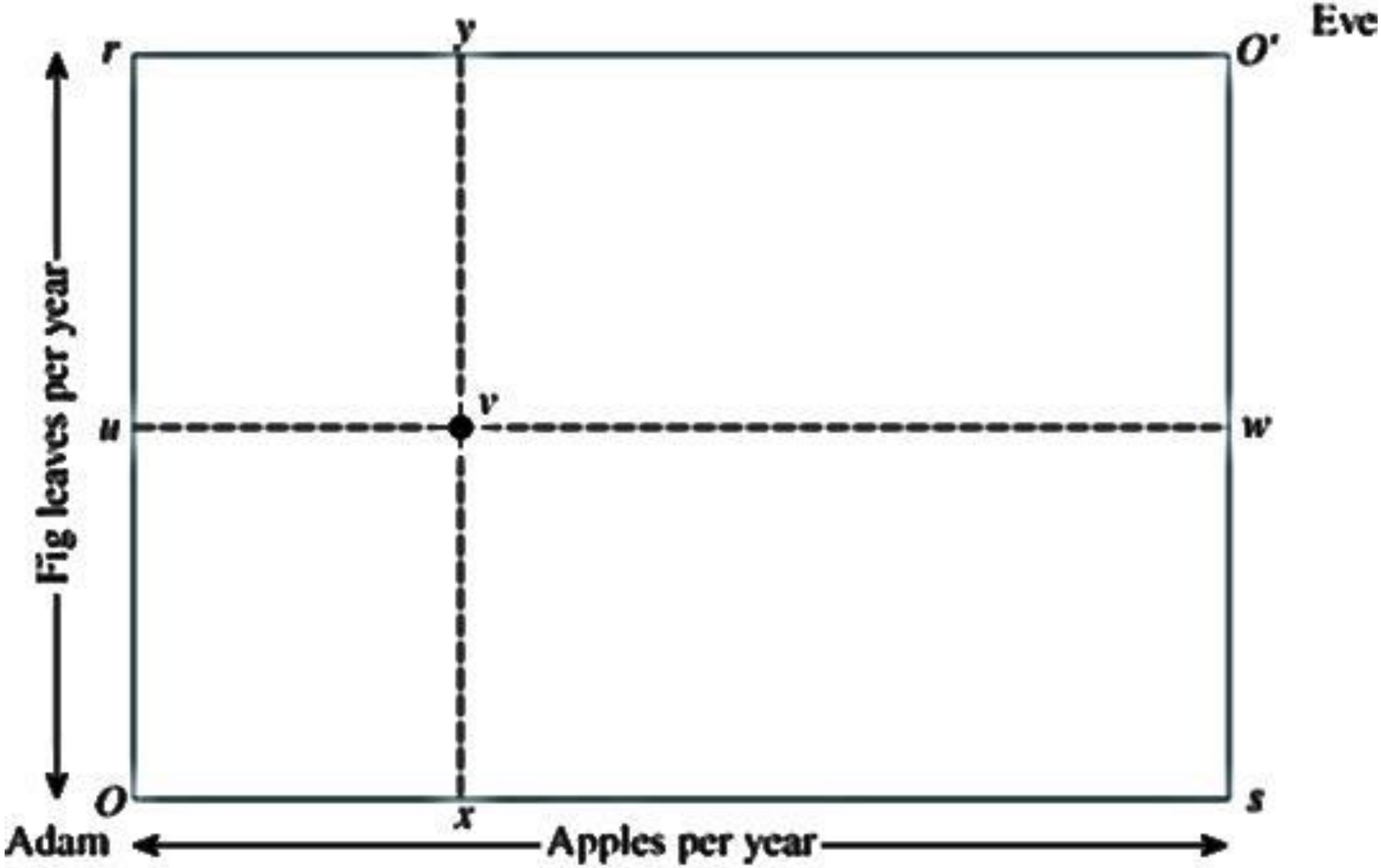
Public Choice Theory

- Attempts to understand and explain society's actual choice for resource allocation
- Choice is based on normative economics
  - Involves value judgments
    - Since various agents have conflicting value judgments, it is difficult to establish a socially optimal allocation
  - Even if these differing value judgments prevent a socially optimal allocation
    - Theory of welfare economics provides a method for delineating important conceptual issues facing all societies
- Relies heavily on basic microeconomic tools, particularly indifference curves.

Pure exchange economy/PCM

- Economy with
  - 2 people (Adam & Eve)
  - 2 commodities (Apples & Figs)
  - Fixed supply of commodities (e.g., on a desert island)
- An ***Edgeworth Box*** depicts the distribution of goods between the two people.

Figure 1.1



Pure exchange economy

- Each point in the box in Fig 1.1 represents an allocation between Adam and Eve.
  - Each point in the box fully exhausts the resources on the island. Adam consumes what Eve doesn't.
  - Adam's consumption of apples and figs increases as we move toward the **North East** in the box.
  - Eve's consumption of apples and figs increases as we move toward the **South West** in the box.
- At point '***V***' in the figure,
  - Adam's allocation of apples is ***Ox*,** and of figs is ***Ou***.
  - Eve consumes ***O'v*** of apples, and ***O'w*** of figs.

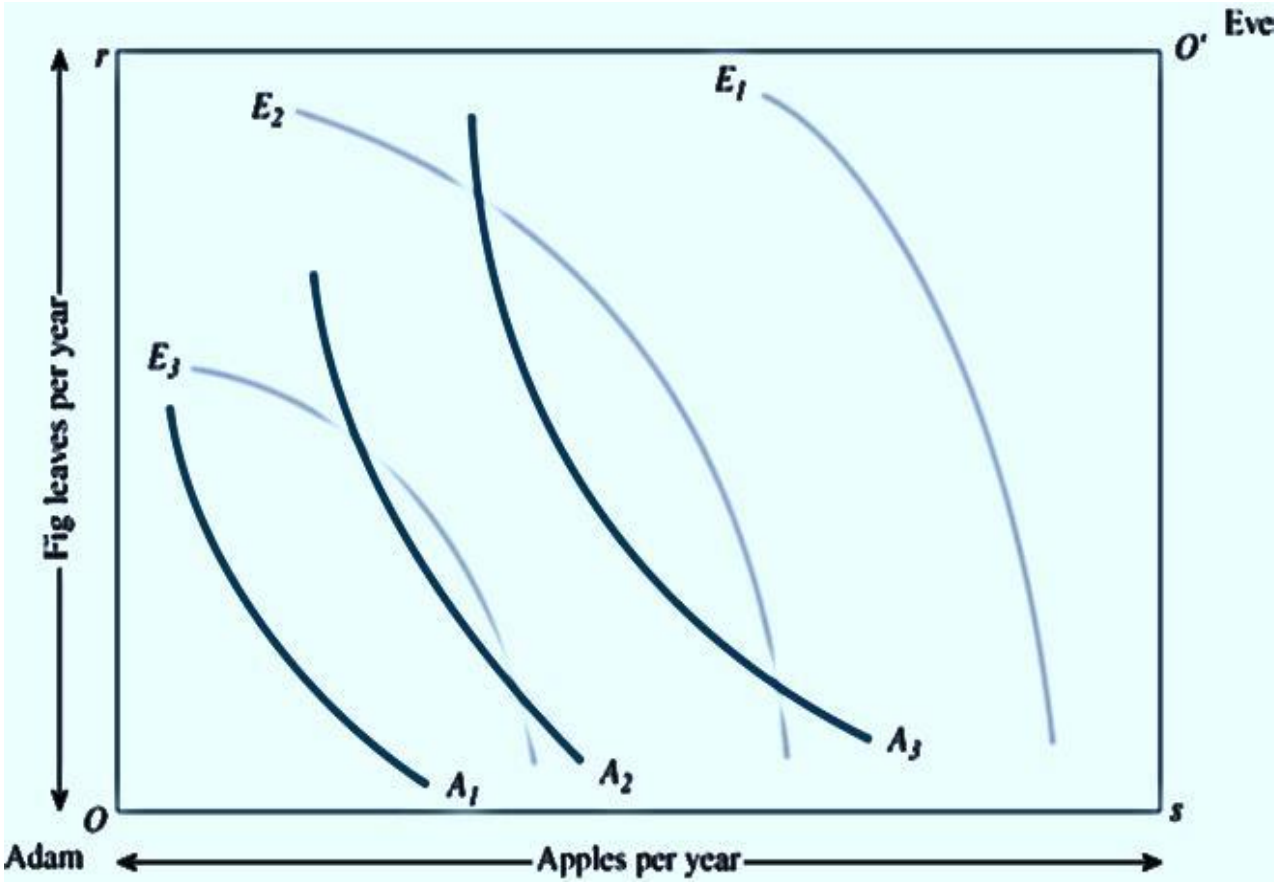
Pure exchange economy

- Assume that Adam and Eve each have conventionally shaped indifference curves.
- Adam's happiness increases as he consumes more; therefore his utility is higher for bundles toward the northeast in the **Edgeworth Box.**
  - We can therefore draw "standard" indifference curves for Adam in this picture. Adam would get even higher utility by moving further to the northeast, outside of the Edgeworth Box, but he is constrained by the resources on the island.

Pure exchange economy

- Similarly, Eve's happiness increases as she consumes more; therefore her utility is higher for bundles toward the southwest in the **Edgeworth Box.**
  - Eve's indifference curves therefore are "flipped around." Her utility is higher on E_3 compared E_2 or E_1.

Figure 1.2



❖Commitment: **concerns are based on ethical principles**

Pure exchange economy

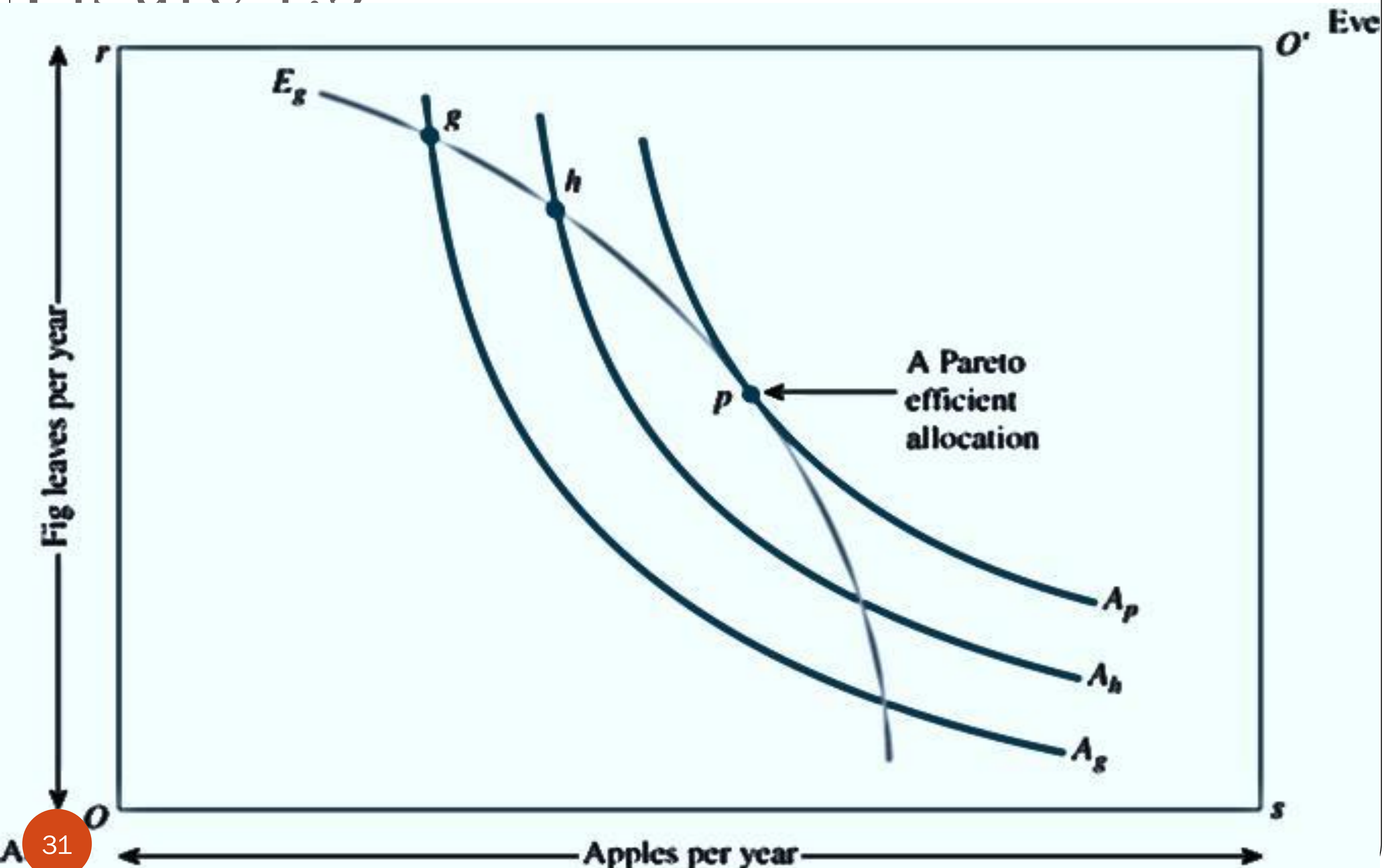
- For the **descriptive approach**
  - There are markets in which individuals' inter-temporal consumption preferences are revealed (borrowing/lending) i.e., interest rates.
  - In **Ideal World**: rate of interest = individuals' consumption rate of discount = marginal rate of return on investment.
- An Allocation of resources is said to be **efficient** if it is not possible to make one or more persons better off without making at least one other person worse off.
  - Allocative (price) Efficiency requires three conditions:

    - Efficiency in consumption,

    - Efficiency in production, and

    - Product-mix efficiency.
- Consider the following graph, at point '**g**' in Fig 1.3. provides an initial allocation of goods to **Adam and Eve**, and thus some initial level of utility.

Figure 1.3



Eve
O'
r
E_g
g
h
p
A Pareto efficient allocation
A_p
A_h
A_g
Fig leaves per year
O
s
A
Apples per year

Pure exchange economy

- Is it possible to reallocate apples and figs between Adam and Eve to make Adam better off, while Eve is made no worse off?
  - **Yes,** Allocation ***'h'*** in Fig1.3 is one possibility.
- Clearly, other allocations achieve this same goal, such as allocation *p*.
- Once we reach allocation *p*, we cannot raise Adam's utility any more, while keeping Eve's utility unchanged.

- **For Eve, with similar fashion**

Pure exchange economy

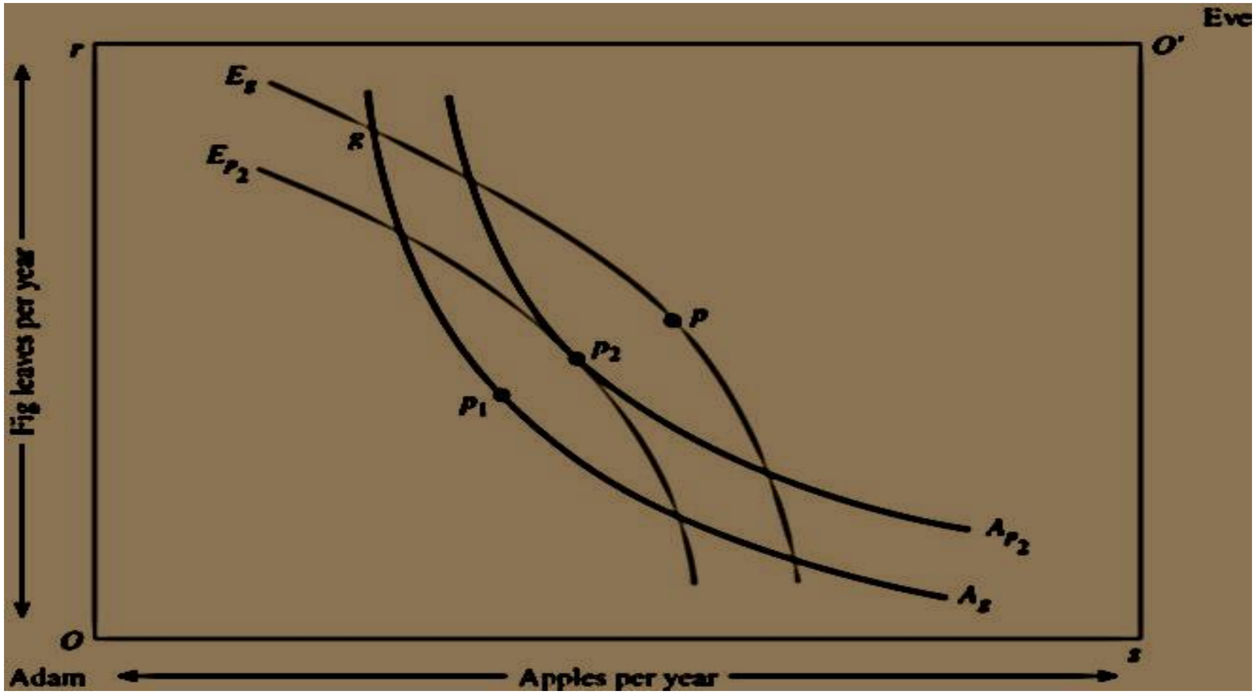
- An allocation is ***Pareto efficient*** if the only way to make one person better off is to make another person worse off.
  - Often used as the standard for evaluating desirability of an allocation of resources.
  - Pareto inefficient allocations are wasteful.
- A ***Pareto improvement*** is a reallocation of resources that makes one person better off without making anyone else worse off.

✓Pareto improvement**: a change where at least one person gains and nobody looses.**

✓Potential Pareto improvement**: if gainers could compensate the losers and still be better off.**

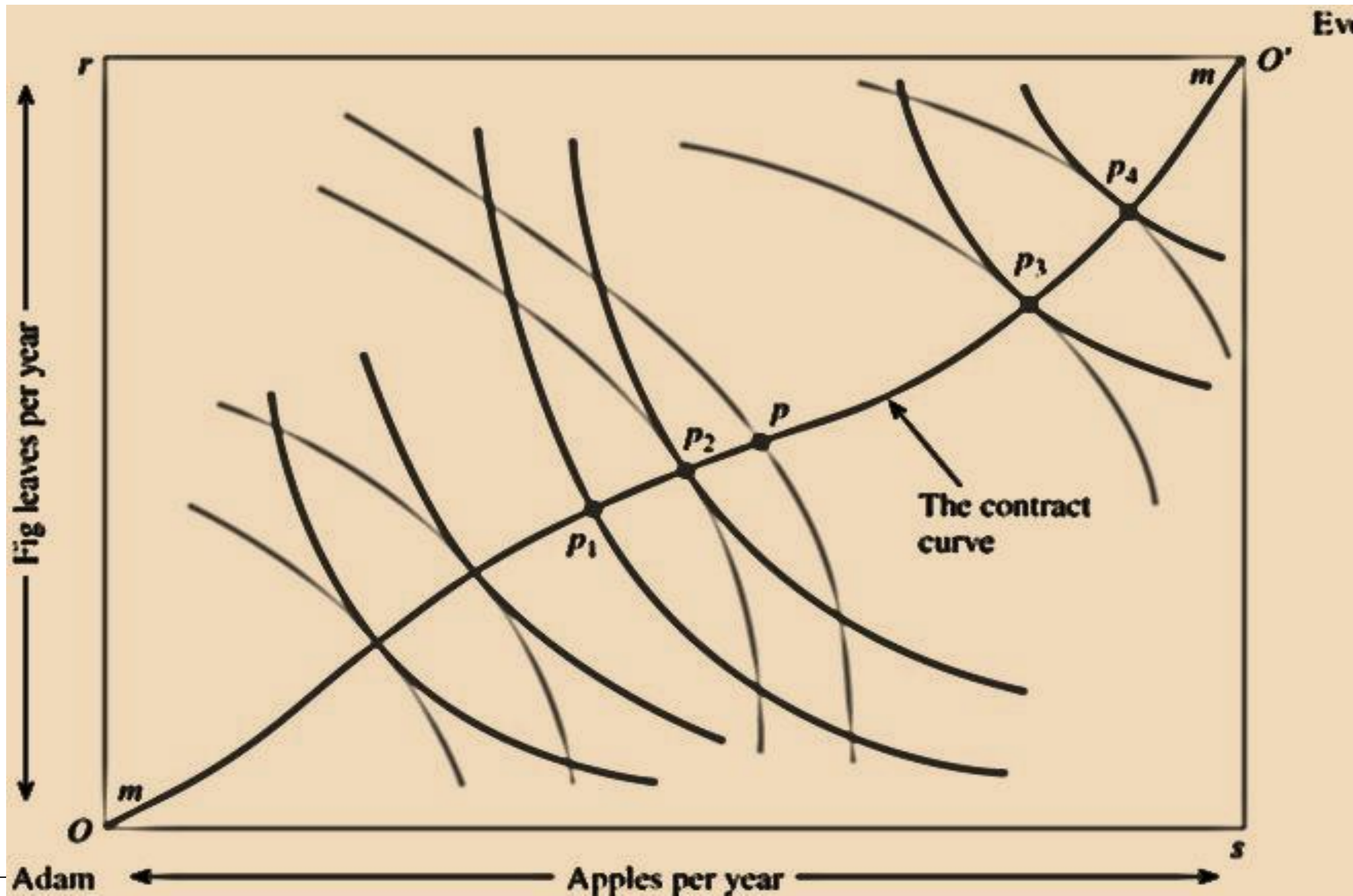
Pure exchange economy

- Many allocations are Pareto efficient, Fig1.5 -- allocations p, p_1 and p_2.
  - Among these Pareto efficient allocations, some provide Adam with higher utility than others, and the opposite ones provide Eve with higher utility.



Pure exchange economy

- In fact, there are a whole set of Pareto efficient points in the Edgeworth Box.
- The locus of all the set of Pareto efficient points is called the ***contract curve*** (Fig 1.7).



Pure exchange economy

- Figure 1.7 shows that each of the Pareto efficient points is where an indifference curve of Adam is tangent to an indifference curve of Eve.
- Mathematically, the slopes of Adam's and Eve's indifference curves are equal.
- The (absolute value of) slope of the indifference curve indicates the rate at which the individual is willing to trade one good for another, know as the ***marginal rate of substitution (MRS)***.

Pareto efficiency requires

$$MRS_{af}^{Adam} = MRS_{af}^{Eve}$$

Production economy

- In pure exchange economy, assumed supplies of commodities were fixed.
- Now consider scenario where quantities can change.
- The ***production possibilities curve*** shows the maximum quantity of figs that can be produced with any given quantity of apples.

Figure 1.8

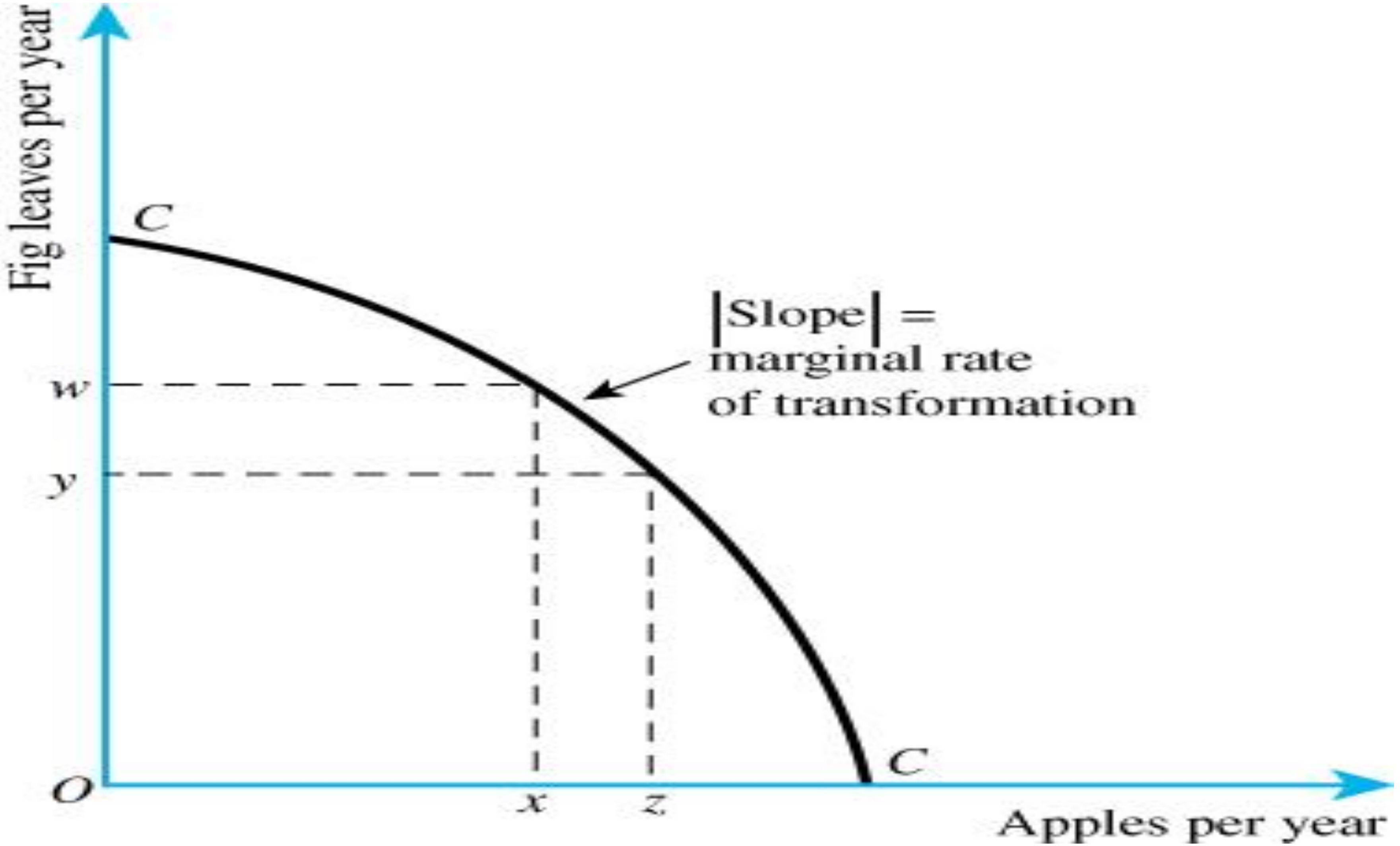


Fig leaves per year
C
w
y
O
x
z
C
|Slope| =
marginal rate
of transformation
Apples per year

Production economy

- For apple production to be increased, fig production must necessarily fall.
- The ***marginal rate of transformation (MRT)*** of apples for figs (MRT_{af}) shows the rate at which the economy can transform apples to fig leafs.
  - It is the absolute value of the slope of the production possibilities curve.
- The marginal rate of transformation can be written in terms of marginal costs:

$$\boxed{MRT_{af} = \frac{MC_a}{MC_f}}$$

Efficiency with variable production

- With variable production, efficiency requires:

$$\boxed{MRT_{af} = MRS_{af}^{Adam} = MRS_{af}^{Eve}}$$

- If this were not the case, it is possible to make one person better off with an adjustment production. Rewriting in terms of marginal costs, we then have:

$$\boxed{\frac{MC_a}{MC_f} = MRS_{af}^{Adam} = MRS_{af}^{Eve}}$$

First Fundamental Theorem Of Welfare Economics

- Assume that
  - All producers and consumers act as perfect competitors.
  - A market exists for each and every commodity
- => The ***first fundamental theorem of welfare economics*** states that a Pareto efficient allocation will emerge.
- **Implication:** Competitive economy automatically allocates resources efficiently, without central planning.
- **Conclusion:** Free enterprise systems are amazingly productive.

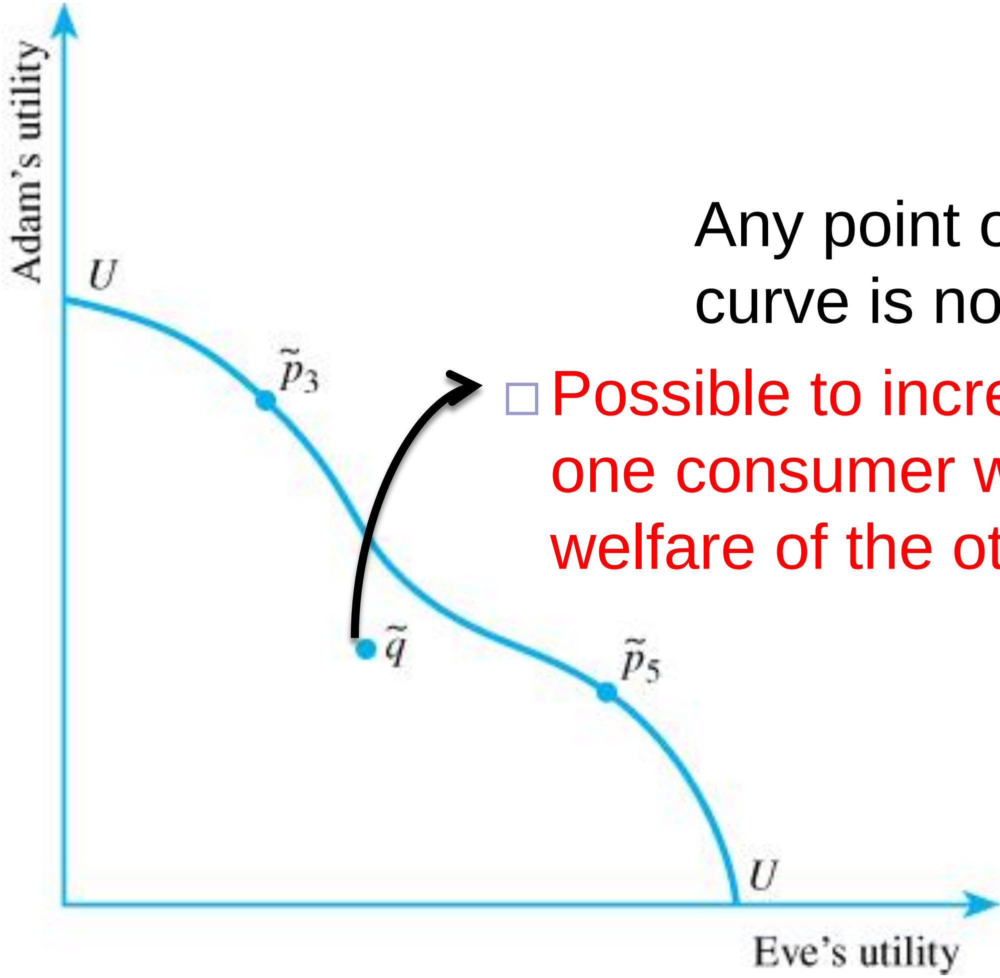
FFTWE.....

- A PC equilibrium will result in a Pareto-efficient allocation
- Depending on initial distribution of endowments, a PC equilibrium can occur at any point on **utility possibilities frontier**
- However, from a ***society's point of view***, allocation resulting from a perfectly competitive equilibrium may **not be equitable**

Second Fundamental Theorem Of Welfare Economics

- Note that Pareto efficiency (and the first fundamental welfare theorem) does not assure fairness.
  - Either the northeast or southwest corner of the Edgeworth Box is Pareto efficient, but very unequal distribution.
- Society may care about more than Pareto efficiency.
- From the contract curve in the Edgeworth Box, could map to derive the relationship between Adam's and Eve's utilities, on the ***utilities possibilities curve***.

Figure 1.10



Any point off this contract curve is not Pareto efficient

- Possible to increase welfare of one consumer without reducing welfare of the other

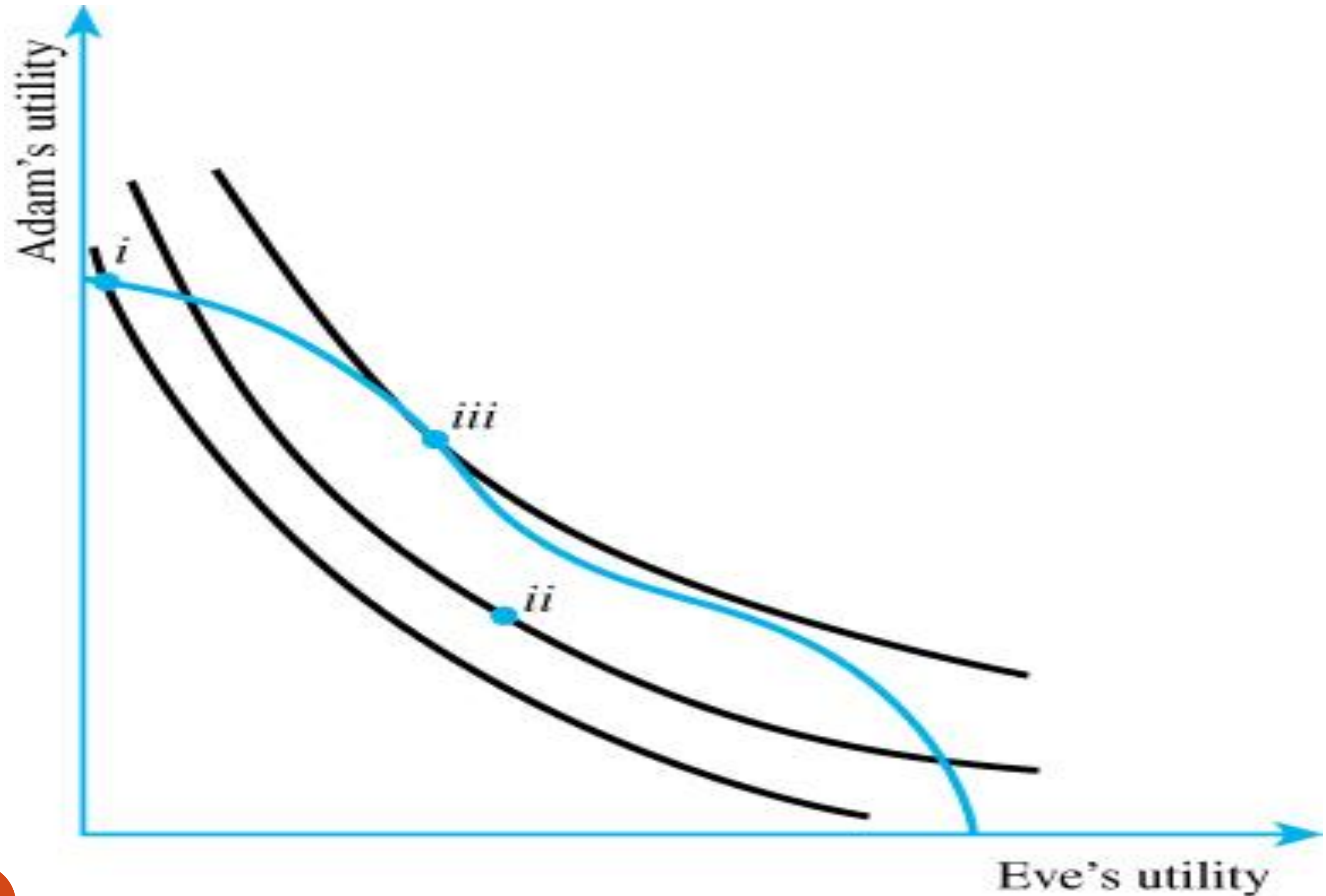
Second Fundamental Theorem Of Welfare Economics

- The frontier of the utilities possibilities curve is, by definition, attainable. Similar to a budget constraint.
- Could postulate a ***Social Welfare Function***, which embodies society's views on the relative well-being of Adam and Eve:

$$W = F(U^{Adam}, U^{Eve})$$

- Could then maximize society's preferences, or demonstrate that some Pareto-inefficient bundles are preferred to some Pareto-efficient ones.

Figure 1.12



Second fundamental theorem of welfare economics

- The ***Second Fundamental Theorem of Welfare Economics*** states that society can attain *any* Pareto-efficient allocation of resources by making a suitable assignment of initial endowments and then allowing free trade.
- No adjustments to prices.
- Issues of efficiency and distributional fairness can be separated.

Market failure

- Theorems will be violated when there are market failures
  - Market power (monopoly)
  - Nonexistence of markets
    - Information failures (asymmetric information)
    - Externalities/spillovers
    - Public goods

Evaluating policy

- Will the policy have desirable distributional consequences?(Taxation and Subsidy policy)
- Will it enhance efficiency?
- Can it be done at a reasonable cost?
  - Society may redistribute income (initial endowments) among consumers in an effort to achieve equity
    - May take form of ***redistributing income***
      - Taxing wealthy and giving tax revenue to poor
      - Providing commodities to poor (for example, Medicare or surplus food from agricultural support programs)
      - Market regulation (for example, rent control or agricultural price supports).
        - ➢*Often directs resources toward tax avoidance*

Externalities

- **Spillover or side effects of economic activities**

External Benefits

- **External benefits** – positive side effects of economic activities
- Examples:
- Compound greenification: not only the compound but also the surrounding community via balancing the weather condition.
  - social benefits = private benefits received by the decision-maker + any external benefits.
    - When there are no external benefits, private and social benefits are equal.

External Costs

- **External costs** – negative side effects of economic activities

- Examples:
- pollution
- drunk drivers

❖ social costs = private costs incurred by the decision-maker + any external costs.

❖ When there are no external costs, private and social costs are equal.

Example: Suppose a firm is considering a project that will cost \$1500 and generate \$1800 in revenue. The project would also produce \$500 worth of aggravation for the neighbors.

- What is the social cost of the project?
  - social cost = private cost + external cost = 1500 + 500 = \$2000.
- **If the firm ignores the effects on the neighbors, will the firm undertake the project?**
  - **Yes,** because the private benefits (1800) exceed the private costs (1500).

Society point of view , should the project be undertaken?

- Assuming there are no external benefits,
  social benefits = private benefits + ext. benefits = 1800 + 0 = \$1800.
- Since the social costs were \$2000, which is greater than the social benefits of \$1800, the project should not be undertaken.

Coase Theorem

- An acceptable solution to an externality will be found if
  - ownership of property is clearly defined,
  - the number of people involved is small,
  - the costs of bargaining are negligible.

✓ In many situations, many people are affected and the costs of bargaining are substantial.

✓ These types of problems are unlikely to be resolved appropriately without government intervention.

External Benefits

- In Microeconomics Principles, we found that when external benefits are ignored, too little is produced.
- In addition, when external benefits are ignored, we found that the level of demand is not as high as it should be, and therefore the price is lower than would be the case if the externalities were taken into consideration.
- If we subsidize goods with external benefits, we can raise the quantity produced to the socially optimal level.

External Benefits

Suppose that MB_E is the marginal external benefit of a good.

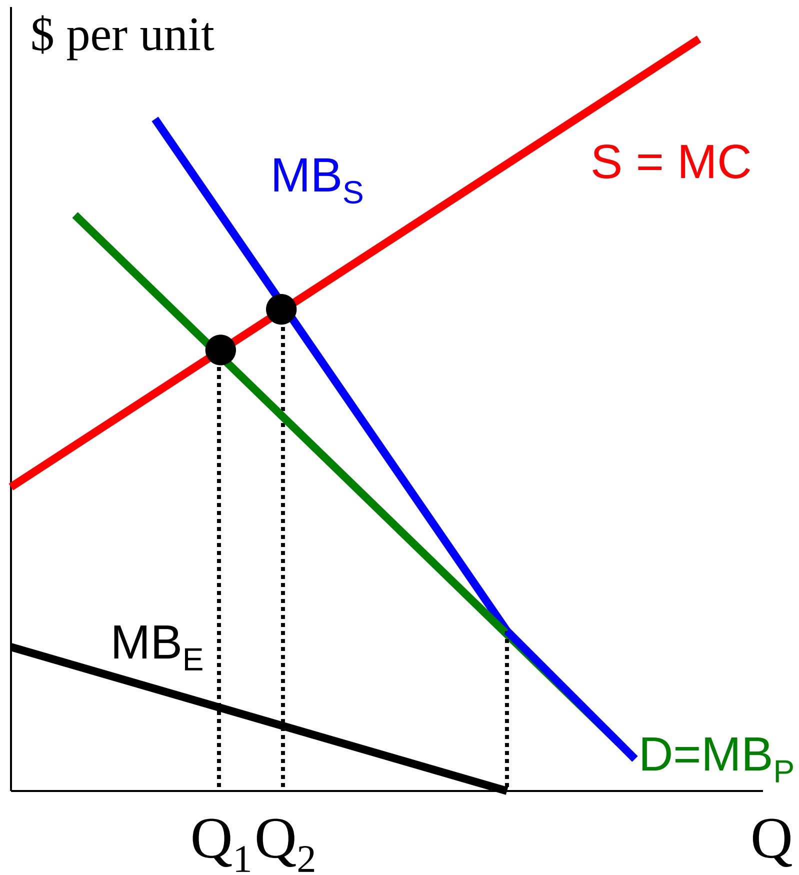
MB_P is the marginal private benefit or demand curve for the good.

The sum of MB_E and MB_P is the marginal social benefit MB_S.

S=MC is the perfectly competitive supply curve and marginal cost of production.

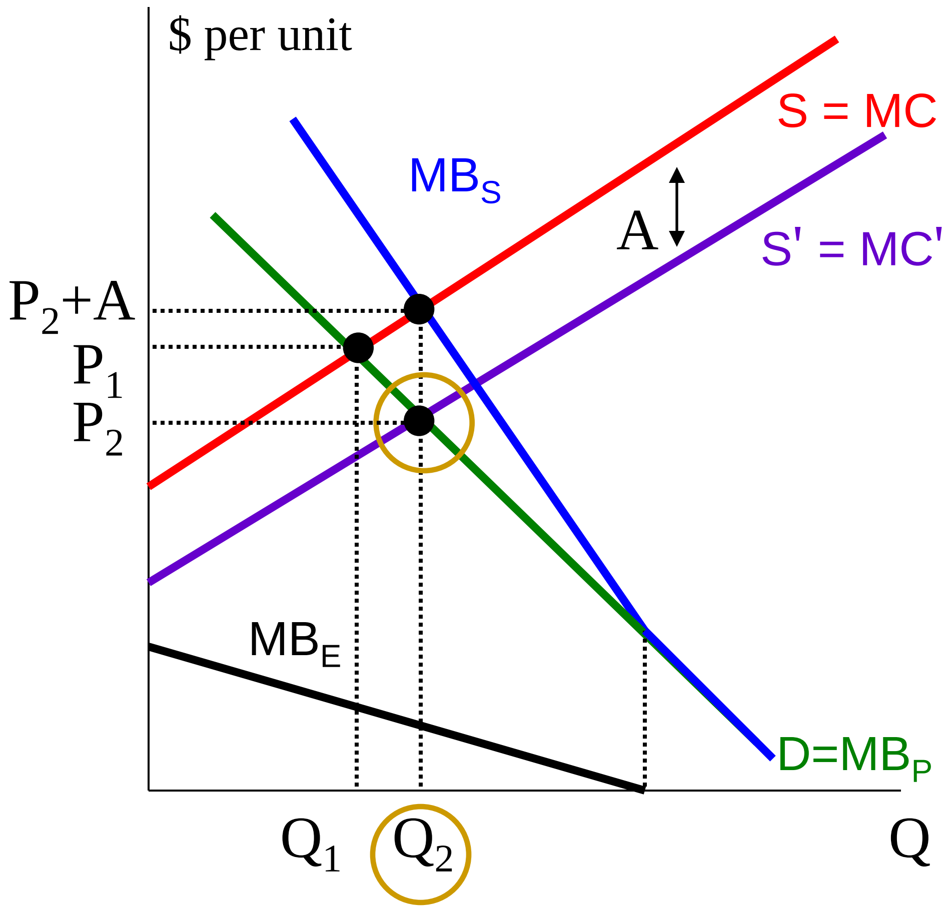
When the externality is ignored, the amount of the good produced is Q_1, where the MB_P equals the MC.

However, the efficient amount from the viewpoint of society is Q_2, where MB_S equals MC.



External Benefits

Suppose a per unit subsidy of $A is provided.
The new marginal cost is $MC' = MC - A$.
When MC' is equated to MB_P, the socially optimally amount of the good Q_2 is produced.
The price of the good paid by the consumer is lower (P_2 instead of P_1).
The total price including the subsidy paid by the government, however, $P_2 + A$ is higher.



External Costs

- In Microeconomics Principles, we found that when external costs are ignored, too much is produced.
- In addition, the price is lower than would be the case if those external costs were taken into consideration.
- If we tax goods with external costs, we can reduce the quantity produced to the socially optimal level.

External Costs

Suppose that MC_E is the marginal external cost of a good the production of which generates pollution.

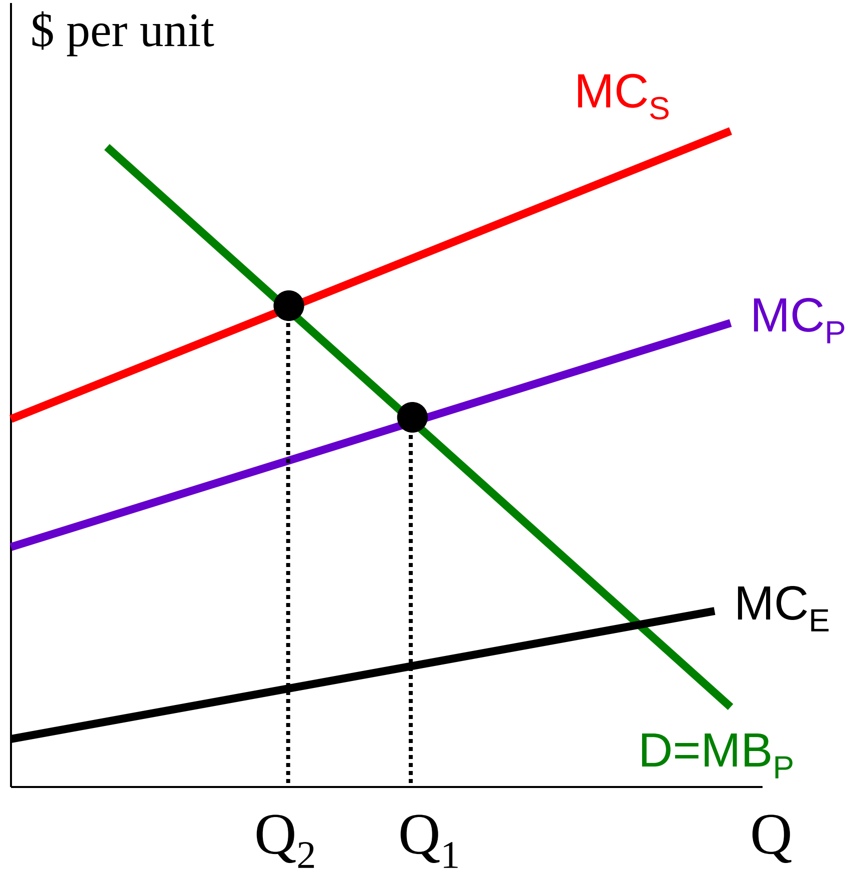
MC_P is the marginal private cost of producing the good.

The sum of MC_E and MC_P is the marginal social cost MC_S.

D is the demand for the product.

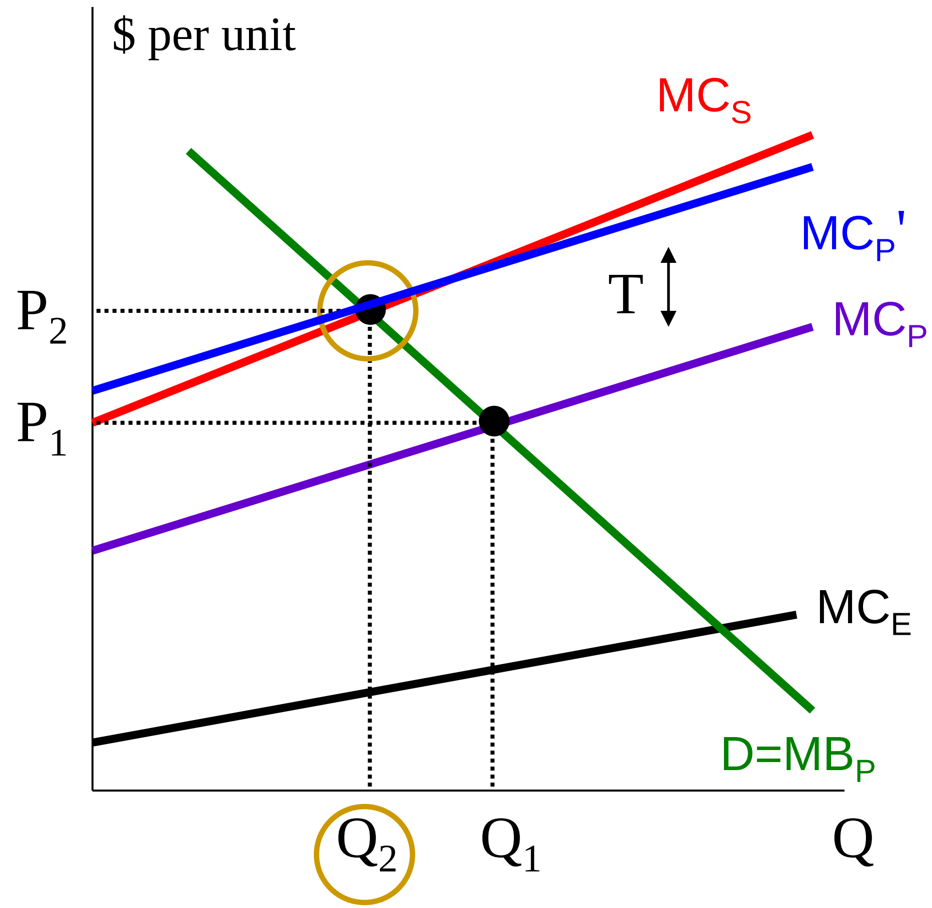
When the pollution is ignored, the amount of the good produced is Q_1, where the D (or marginal private benefit) equals the MC_P.

However, the efficient amount from the viewpoint of society is only Q_2, where MC_S equals D.



External Costs

Suppose a per unit pollution tax of \$T is imposed.
The new marginal private cost of producing the good is $MC_P' = MC_P + T$.
When MC_P' is equated to $D = MB_P$, the socially optimally amount of the good Q_2 is produced.
The price of the good is also higher: P_2 instead of P_1.



Let’s focus on the cost of pollution reduction.

- The production of some goods generates pollution.
- To reduce that pollution requires taking steps that incur costs.
  - **One example would be the installation of filters on smokestacks.**
- Suppose the cost of pollution reduction is not the same for all firms.

  - **What would be the impact of the government imposing a per unit pollution tax on all firms?**

2. Public Goods

Public Goods Defined

- Public Goods are goods for which exclusion is impossible.
  - E.g. National Defense: A military that defends one citizen from invasion does so for the entire public.
- **<u>Pure public goods share two characteristics</u>**
  - ***Nonrival--*** Cost of another person consuming good is **zero**
    - One person's consumption of the good does not reduce the amount available for others to consume. .
  - ***Nonexcludable*** – Very expensive to prevent others from consuming the good.
    - Once a public good has been provided to one person, there is no easy way to prevent others from consuming it as well.

Examples of public and private goods

- **Public Goods**
  - National defense
  - House cleaning in an apartment with many roommates
  - Fireworks display
  - Music file sharing

- **Private goods**
  - Pizza
  - Health care
  - Public housing

- **National Defense** – everyone is protected by the same defense system
- **Dams** – everyone in the community is protected from flooding by the dam

Valuation of public goods

- Everyone consumes same *quantity* of public good
- Marginal benefit of public good varies by person
  - In the housecleaning example, different roommates value the clean apartment differently.

- Pure Public Good: No ability to exclude and no rivalry for benefits.
- Pure Private Good: Clear ability to exclude and rivalry for benefits.

Table 1.1 Category of Goods

	Rival	*Nonrival*
Excludable	**Pure private goods**	**Club goods**
Nonexcludable	**Public pool**	**Pure public goods**

- **Impure public goods**
  - Most goods that are thought of as public goods may not strictly satisfy the ***non-rival*** **or** ***non-excludable*** assumption
  - A scenic view is a public good **without congestion**, but the **quality diminishes** as more the number of sightseers increases.
  - Thus, a scenic/ attractive view becomes *rival*.

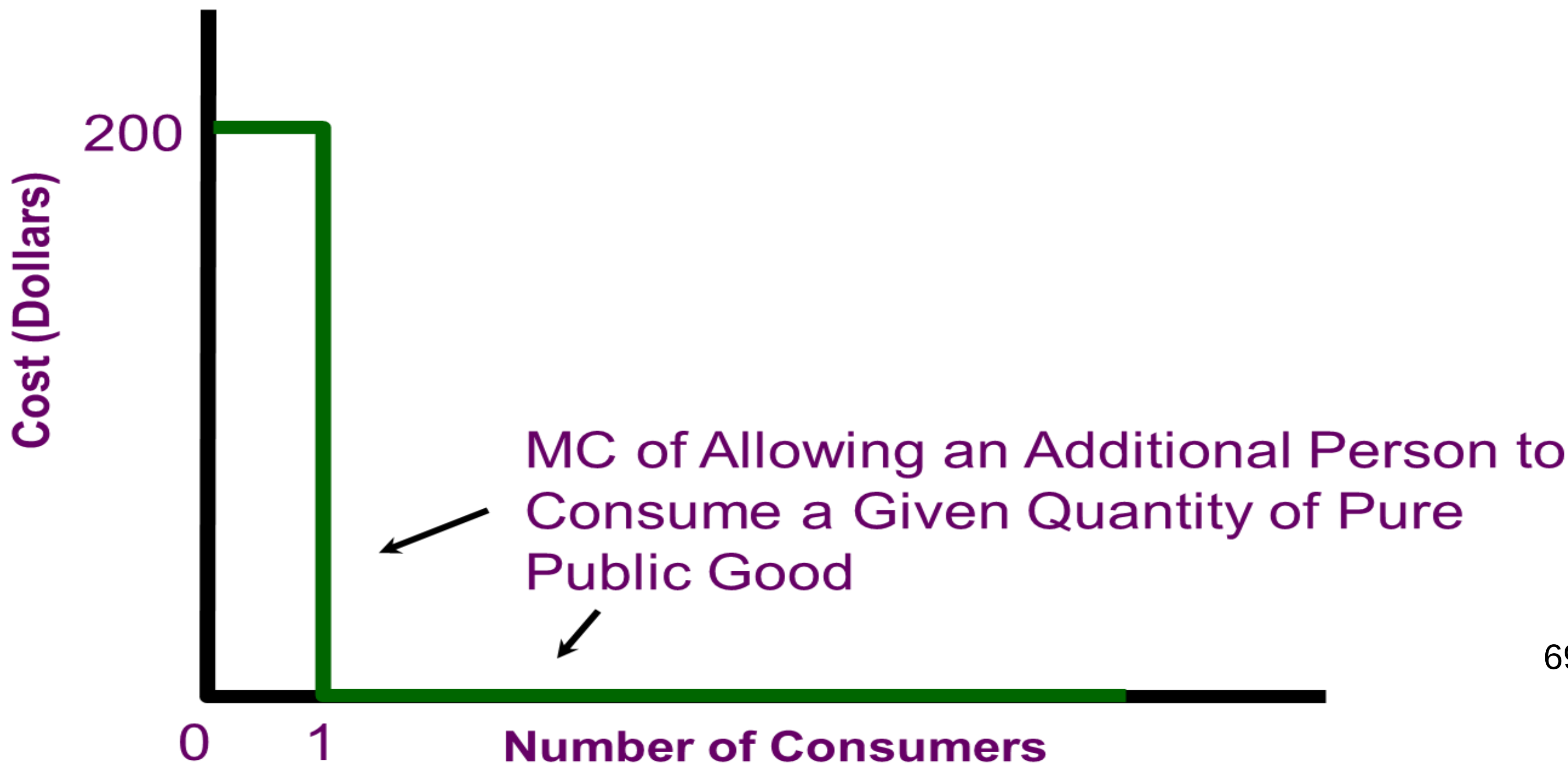
    - **Club goods and Public pool**

- **Club goods**
  - Or named as: ***Price Excludable Public Goods***
  - Excludability, but not rivalry
  - Examples: Country Clubs, Cable TV

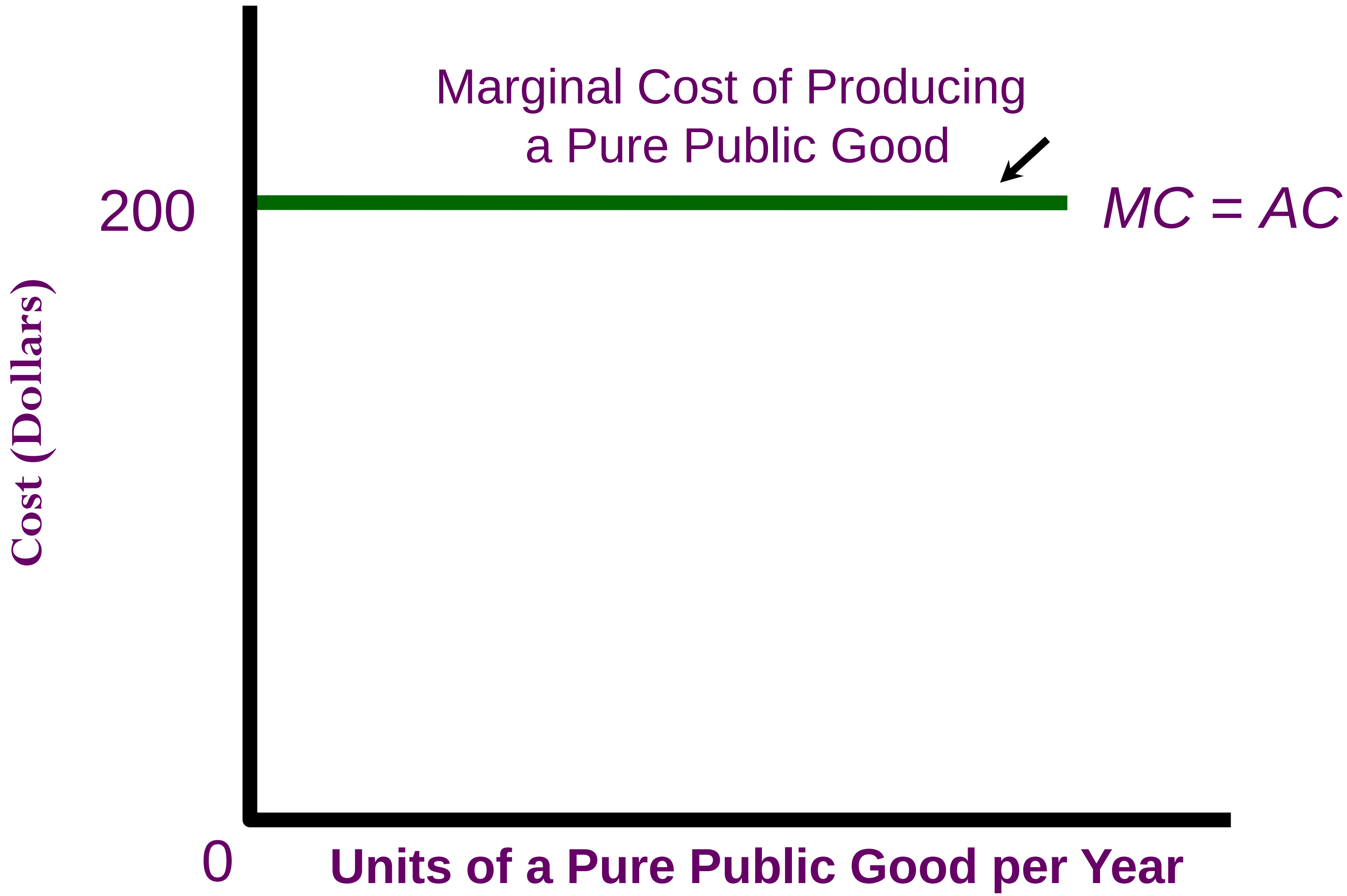
- **Public Pool**
  - Or named as: **Congestible Public Goods**
  - Rivalry but not excludability
    - There are public goods where, after a point, the enjoyment received by the consumer is diminished by **crowding or congestion**. These are called **Congestible Public Goods**.
  - Examples: roads and parks

MC for Provision of Public Goods

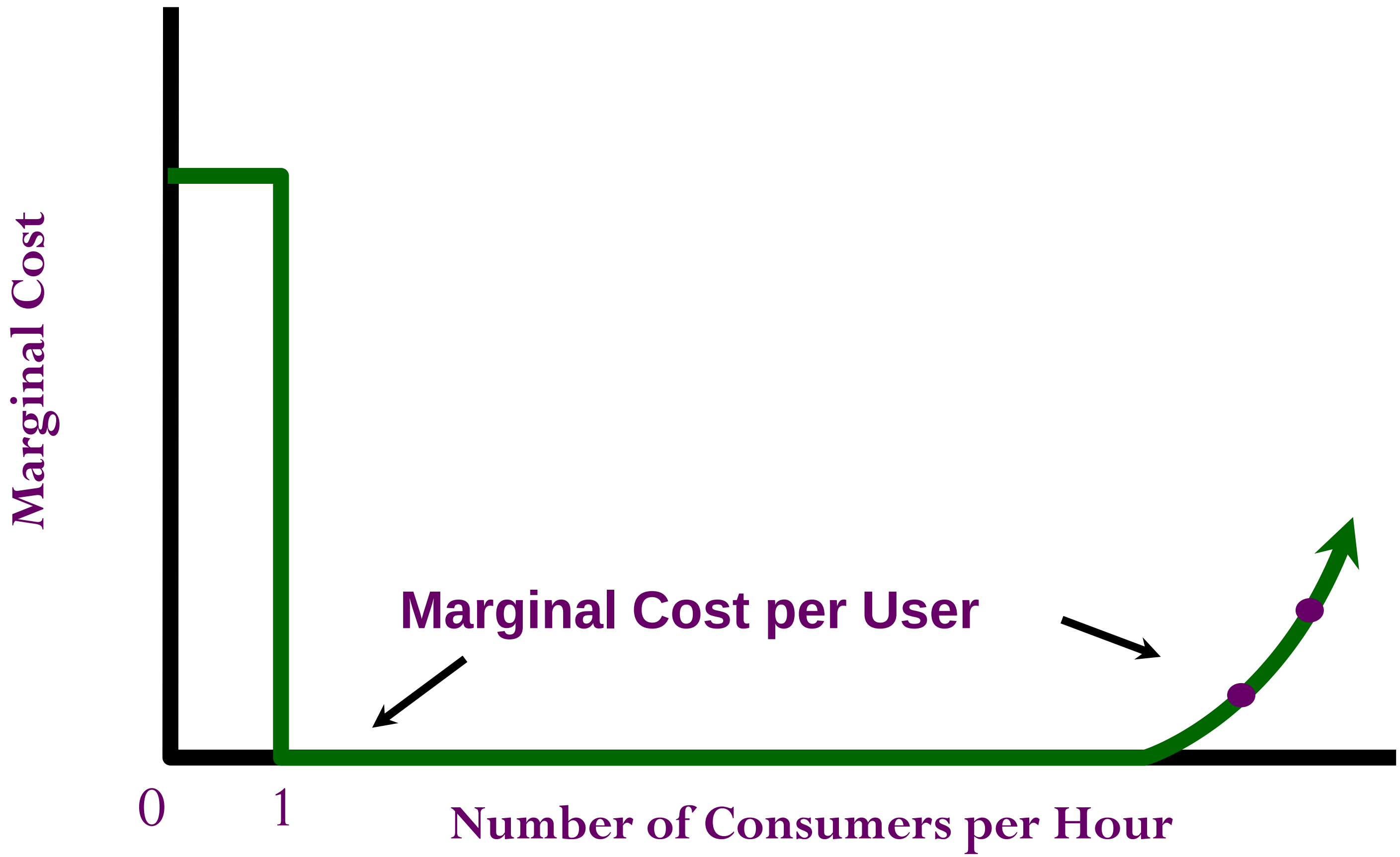
- The **MC of allowing** another person to benefit from a pure public good is zero,
- while the **MC of providing** a greater level of public good is positive.



Marginal Costs of Producing a Pure Public Good



Public pool goods (A Congestible Public Good)



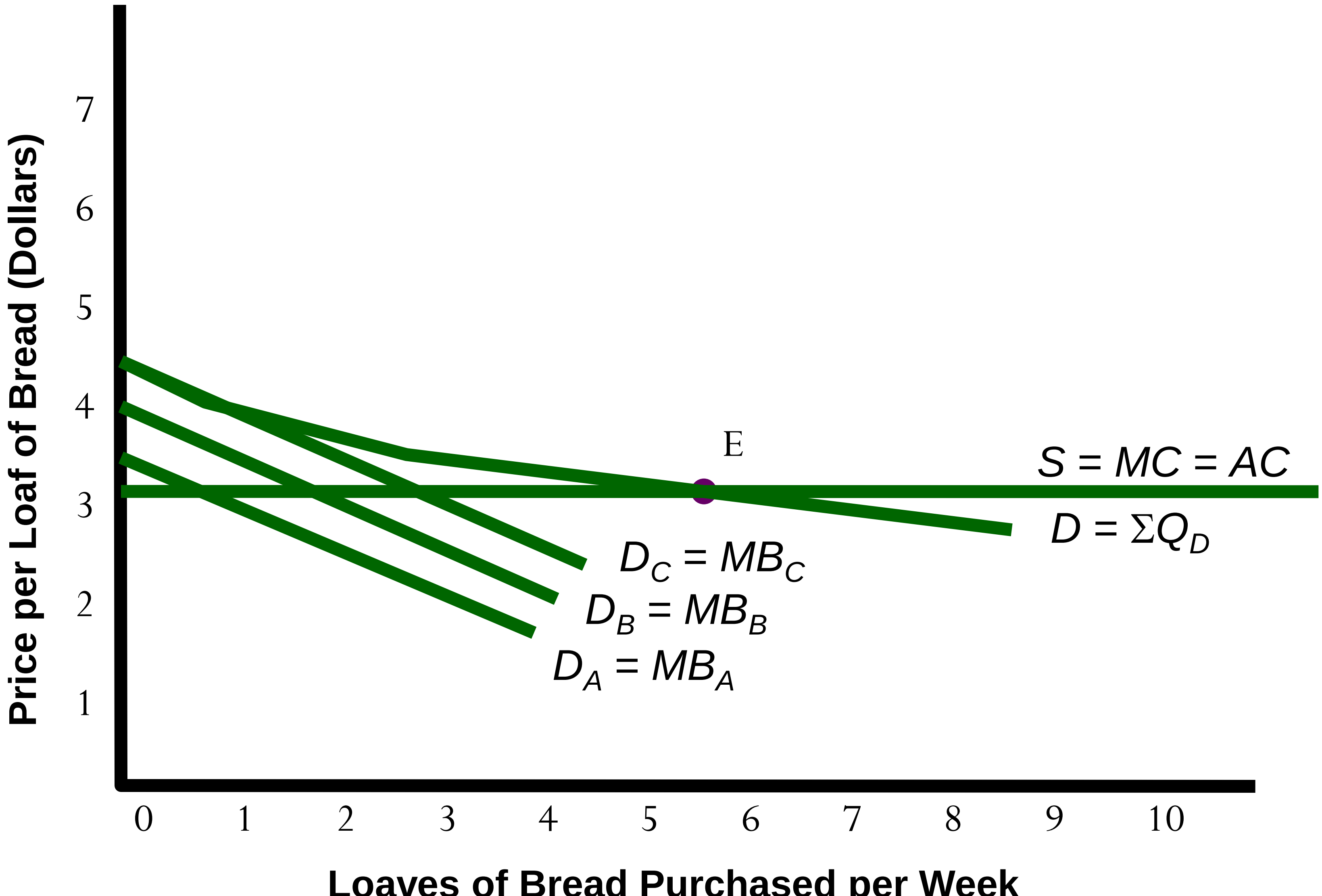
Private goods can be provided by the public sector

- These are called "publicly provided private goods."
- **Key criteria**: is the good *rival* and *excludable*?
- Public housing is rival (one family consumes one apartment) and excludable (easy to prevent consumption).

Efficient provision of private goods

- ❖ Derivation of aggregate demand
- ❖ Each person's demand curve represents the **willingness-to-pay** for an additional unit of a good.
- ❖ Demand for a Pure Public Good is derived by adding **how much people will be willing to pay** at each quantity.
  - ❖ **Private good:** holding P constant, add together individual quantities to get Q i.e. Market demand for a Pure Private Good is derived by adding quantities demanded at each price.

Demand For a Private Good



Equilibrium in private goods market

- Equilibrium where supply curve intersects aggregate demand curve.
- Everyone pays the same price, *P*.
- Individuals consume different quantities, *Q*.
- **Pareto efficient.**

Efficient provision of public goods

- Consider a fireworks display as a public good – it is Nonrival and Nonexcludable.
- Public good: holding ***Q*** constant, add together individual willingness-to-pay to get ***P***.
- Vertical summation.

Demand For A Pure Public Good

Figure 1.5

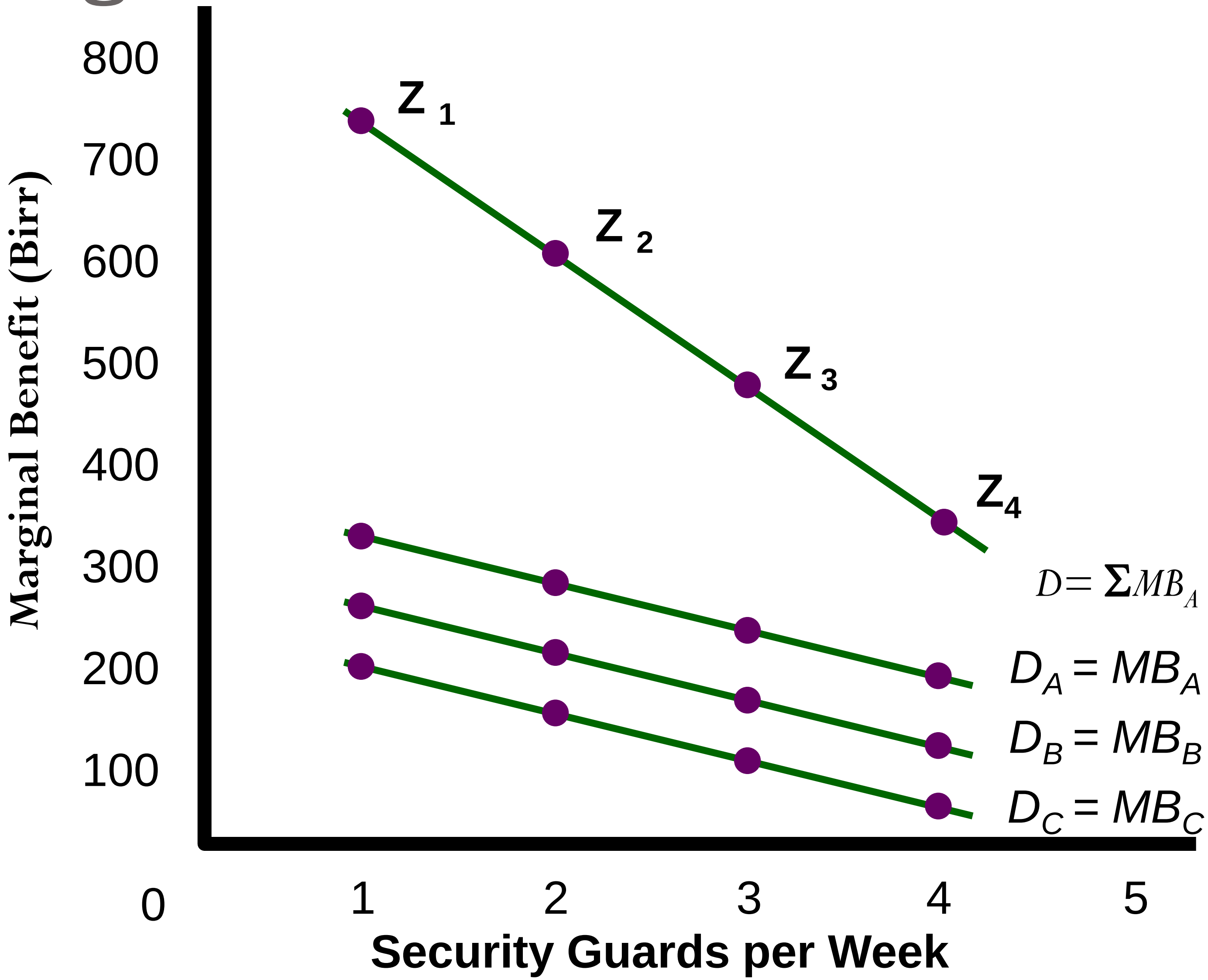
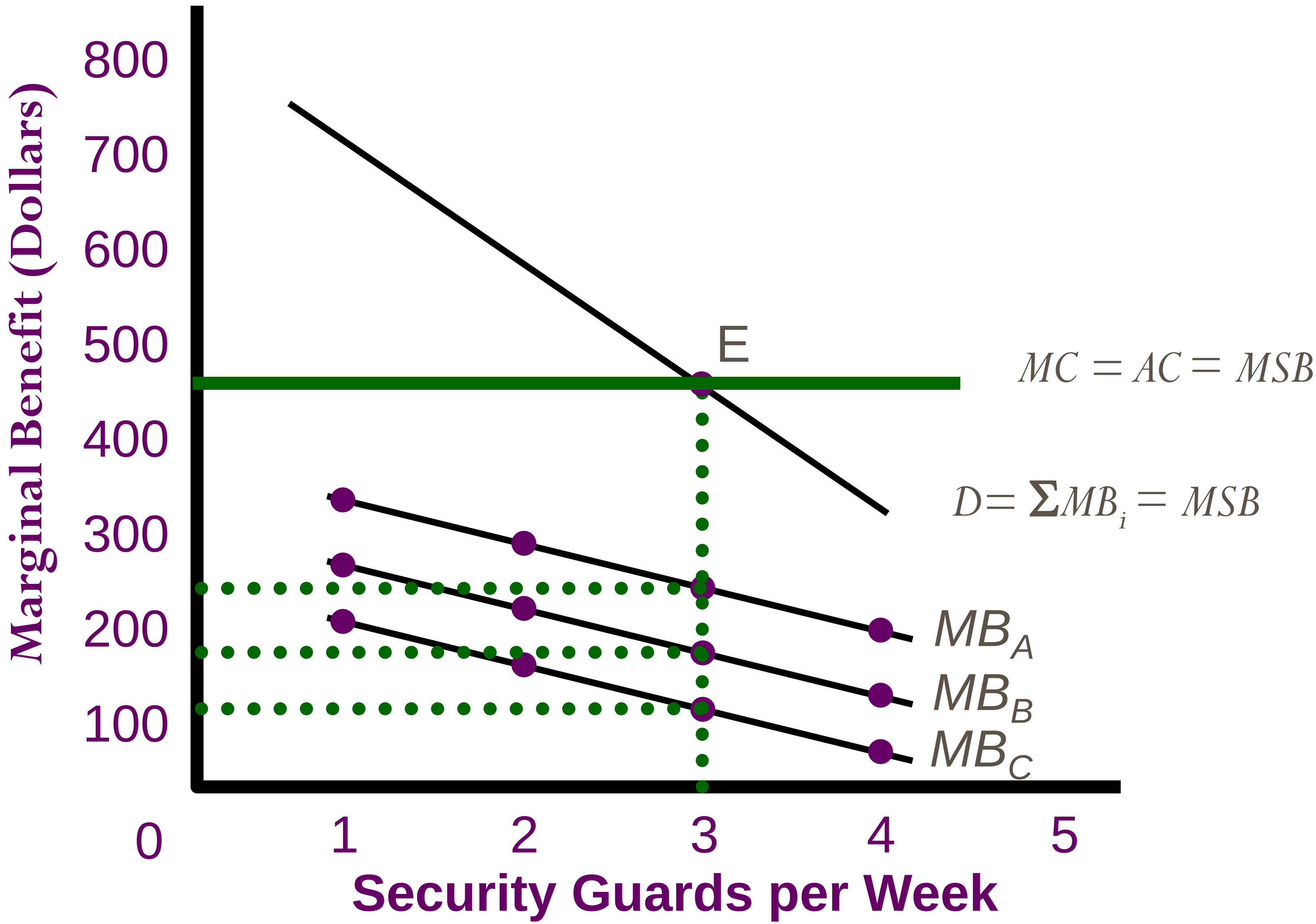


Figure 4.6 Efficient Output for a Pure Public Good



Efficiency in public goods market

- Everyone consumes the same quantity, Q
- Individual's marginal benefit varies.
- Efficiency requires that the *sum* of individual marginal benefits equals the marginal cost.

Numerical example

- Consider 2 individuals, Adam and Eve who have the following inverse demand curves, and face a marginal cost curve below.

$$P_A = 100 - \frac{1}{2} Q_A$$

$$P_E = 200 - Q_E$$

$$MC = \frac{2}{3} Q$$

Numerical example, private good

- If the good was a ***private good***, then the aggregate demand curve is:

$$Q = Q_A + Q_E = (200 - 2P_A) + (200 - P_E)$$

- With a ***private good***, everyone pays the same price.

$$P = P_A = P_E$$

$$Q = 400 - 3P$$

Numerical example, private good

- In a competitive market, P=MC

$$P = MC \Rightarrow \frac{400}{3} - \frac{Q}{3} = \frac{2}{3}Q$$

$$Q = \frac{400}{3} \approx 133, P = \frac{800}{9} \approx 88$$

- Approximately 133 units of the ***private good*** are provided at a price of **$88.**
- Adam consumes around **22 units** and Eve consumes around **111 units**.

Numerical example, public good

- Suppose instead that the good is a ***public good***. The aggregate demand curve is:

$$P = P_A + P_E = (100 - \frac{1}{2}Q_A) + (200 - Q_E)$$

- With a ***public good***, everyone consumes the same quantity.

$$Q = Q_A = Q_E$$

$$P = 300 - \frac{3}{2}Q$$

Numerical example, public good

- Efficient provision would require: P=MC

$$P = MC \Rightarrow 300 - \frac{3}{2}Q = \frac{2}{3}Q$$

$$Q \approx 138.46, P \approx 92.30$$

- Efficient provision would imply that Adam & Eve consume 138.46 units of the public good.
- Private market may not arrive at this allocation, however.

Efficient allocations of public goods: Problems

- **Although a competitive market will provide private goods efficiently, will the same be true for public goods?**
- People may have incentives to **hide their true preferences** for a public good.
- There is an incentive to not reveal your true valuation, since if the good is provided, you are going to get the use of it anyway.
- Someone who enjoys the benefit of a good without paying for it is called a **Free Rider**.

Problems, continued

- This incentive to free ride occurs because the public good is **non-rival** and **non-excludable**.
- A person gets to consume the good even if he does not pay for it.

- Freeriding is easier with
  - **Anonymity:** If everyone knows who contributes, there can be powerful social stigmas applied to shirkers **(Namelessness)**
  - **Large numbers of people:** It's easier to determine the shirkers in a small group and the punishment is more profound when people close to you shun you for not paying your share

Problems, continued

- Return to the public goods numerical example. Suppose Adam chooses to free ride, and Eve therefore provides her optimal amount.
- Eve chooses:

$$P_E = MC \Rightarrow Q_E = Q = 120$$

Solutions to the free rider problem

- **Government intervention** can potentially lead to a more efficient outcome.
  - Government can use ***coercive*** power to force people to pay for public goods, through taxation.
- Free riding is not a *fact*, however. There are instances when individuals do act collectively without coercion.

CHAPTER THREE

Public expenditure

- ✓ Public expenditure refers to the expenses which the government incurs for its own maintenance and/or for the society and the economy as a whole.

- ☐ Objective of PE;
  - ➢ **Security of life** against the external aggression and internal disorder and injustice.
  - ➢ **Development or advancement** of social life in the community.

Kinds of public expenditure

- **Recurrent and capital expenditure:**
  - RE- all expenditures on civil administration, defense forces, public health and education and debt services incurred year after year.
    - →also called non-developmental expenditure b/se it was intended for continuing the existing flow of goods and services .
  - CE-are incurred on building of durable assets, like highways, multipurpose dams, irrigation projects, buying machinery and equipment.
    - →Such expenditures are expected to improve the productive capacity of the economy.

- **Transfer and Non-Transfer Expenditure:**
  - TE- relates to the expenditure against which there is no corresponding return for the government.
    - E.g. National Old Age Pension Schemes,
      Interest payments, Subsidies, Unemployment allowances,
      Welfare benefits to weaker, etc.
- Such expenditure basically results in redistribution of money incomes within the society.
- **Non-TE**- relates to expenditure which results in creation of income or output.
  - includes development and non-development expenditure that results in creation of output directly or indirectly.
  - E.g. Economic infrastructure like power, transport, irrigation, etc.
    Social infrastructure like education, health & family welfare.
    Internal law and order and defense.
    Public administration, etc.

- **Productive and Unproductive Expenditure:**
  - **PE-** Expenditure on infrastructure development, public enterprises or development of agriculture increase productive capacity in the economy and bring income to the government.
  - **Un-PE-** Expenditures in the nature of consumption such as defense, interest payments, expenditure on law and order, public administration, do not create any productive asset which can bring income or returns to the government.

Reasons for growing of the expenditure

- **Population growth**=>public goods and services
- **Increasing urbanization**=>water supply, electricity, construction hospitals, schools
- **Provision of economic overheads**=>Transport and Communication
- **Maintenance of law and order**=> Internal protection of people from antisocial elements
- **Welfare activities**=>pension, unemp't benefit, sickness benefit
- **Servicing of public debt**=>repayment of debt becomes huge
- **International obligation**=>maintain international socio-political and economic links.
- **Growth of Democracy**=>to achieve goodwill o f the public.

Canons of Public Expenditure

- **Canon of Benefit:** planned and implemented as to bring about the greatest possible benefit to society.
- **Canon of economy:** should be incurred carefully so that there is no wastage of funds.
- **Canon of surplus:** should be kept within the limits of current revenues.
- **Canon of sanction:** public authorities should not be allowed to spend funds without having a previous approval from appropriate authority for the purpose.
- **Canon of elasticity:** rules of public expenditure should not be too rigid to achieve the real purpose.
- **Canon of certainty:** public authorities should clearly know the purpose and extent of public expenditure.
- **Canon of Productivity:** expenditure policy of the Governments should encourage production in a country.
- **Canon of Equity:** public expenditure should ensure the just and equitable distribution of income for the countries where the income gap very wide.

Theories of Public Expenditure

- Reasons for government expenditure growth;
- **Macro models**
  - ✓Wagner and the stages of development
  - ✓Peacock and Wiseman's displacement effect
  - ✓The Meltzer-Richard hypothesis
- **Micro models**
  - ✓Baumol's unbalanced productivity growth
  - ✓Brown and Jackson's microeconomic model.

Wagner's Law of Increasing State Activities

- Adolph Wagner, the German economist, set the Law of Increasing State Activities based on historical facts of 19^{th} c
- Wagner's law states that "**as the economy develops over time, the activities and functions of the government increase**".
- Central and Local Governments, constantly undertake new functions, while they perform both old and new functions more efficiently and more completely.
- In this way economic needs of the people to an increasing extent and in a more satisfactory fashion.

Wagner's Statement Indicates Following Points

- ✓ In Progressive societies, the activities of the central and local government increase on a regular basis.
- ✓ The increase in government activities is both extensive and intensive.
- ✓ The governments undertake new functions in the interest of the society.
- ✓ The purpose of the government activities is to meet the economic needs of the people.
- ✓ The expansion & intensification of government function & activities lead to increase in public expenditure

Reasons for Increase PE

- Expansions in the traditional function of the state.
- State activities were increasing in their coverage.
- The need to provide and expand the sphere of public good.
- Additional factors
  - Growing population
  - increasing urbanization
  - Prices have a secular tendency to go up.
  - ever increasing specialization.
  - Popularity of the philosophy of planning and economic growth
  - growing complementarities between public and private consumer and capital goods.

Critics against Wagner's law

- Emphasized on the long-term trend than short-term changes in public expenditure=> could not be used to predict rate of increase in future.
- Not concerned with the mechanism of increase in public expenditure=> historical experience only.

Wiseman-Peacock Hypothesis

- 2nd model dealing with the growth of public expenditure, was put forth by **Wiseman and Peacock** in their study of public expenditure in UK for the period 1890-1955.
- They found out that Wagner's Law is still valid, with further expansion;
  - "The rise in public expenditure greatly depends on revenue collection.
  - Over the years, economic development results in substantial revenue to the governments, this enabled to increase public expenditure".

  - PE doesn't increase in a **smooth and continuous** manner, but in jerks or step like fashion

Cont'd…

- There exists a big gap between the expectations of the people about public expenditure and the **tolerance level of taxation**.
  - Therefore, governments cannot ignore the demands made by people regarding various services.
- During the times of war, the government further increases the tax rates, and enlarges the tax structure to generate more funds to meet the increase in defence expenditure.
  - After the war, the new tax rates and tax structures may remain the same, as people get used to them.
  - Therefore, the increase in revenue results in rise in government expenditure.

Wiseman-Peacock Hypothesis

- Peacock and Wiseman (1961), referred to as **P-W**, adopt a clearly inductive approach to explaining the growth of government expenditure.
- When P-W observed that expenditures over time appeared to outline a series of plateaus separated by peaks, and that these peaks coincided with periods of war and preparation for war they were led to expound the **"displacement effect"** hypothesis.
- The inadequacy of the revenue as compared with the required public expenditure creates an **inspection effect**.
- Thus, each major disturbance leads to the government assuming a larger proportion of the total national economic activity =>**there is a concentration effect** (tendency for central government to grow faster than the state and local level governments).

- The **three basic propositions** underlying the P-W analysis are that
- ✓ Governments can always find profitable ways to expend available funds,
- ✓ Citizens are unwilling to accept higher taxes, and
- ✓ Governments must be responsive to the wishes of their citizens.
  - **From these basic tenets P-W derive the key concept of a "tolerable burden of taxation"**

- Taxation remain fairly stable in **peacetime**=>limited revenue capacity of the gov't prevents major increases in expenditures.
- Therefore, desired government expenditures and the limits of taxation are likely to diverge.
- During periods of **social upheaval** such as war this divergence is likely to be narrowed, permanently displacing the burden of taxation upward.
- The end result is the attainment of a new expenditure plateau at a higher level than before the onset of the upheaval=> unacceptable revenue-raising methods will be tolerated.
- P -W argue that a war brings into focus problems that were not identified before=>"**inspection effect**".

Conclusion

- Wagner's law and Peacock-Wiseman hypothesis emphasize on the fact that **public expenditure has tendency to increase overtime**.

- **Reading Assignment**
  - ✓ **Bowen's Model of Public Expenditure**
  - ✓ **Samuelson's Benefit theory of Public Expenditure**
  - ✓ **Musgrave's Optimum Budget Theory**

Control of public expenditure

- Control of public expenditure is sought to be ensured multi-dimensionally at a number of stages.

❖ **The most important means of control are**

(a) **Budgetary control**: specifies the functions and objects of PE.

(b) **Legislative control:** clarification and justification of expenditure programmes provided by legislature for approval.

(c) **Administrative control**: rules and regulations ensure that no amount is spent without proper sanction or diverted to some other purpose for which it is not sanctioned.

(d) **Audit control**: examination of accounts control

(e) **Parliamentary control**: Public Accounts Committee and the Estimates Committee.

PAC: examining audit reports and appropriation accounts.

ECs: financial operation of the executive and suggests measures to achieve maximum efficiency.

Effects of public expenditure

1. Effects on production

- Examined with reference to its effects on ability & willingness to work, save & invest and on diversion of resources.
  - ✓ **Ability to work, save and invest:** Socially desirable public expenditure increases community's productive capacity. Expenditure on **education**, **health**, **communication**, increases people's productivity at work => incomes=> savings => investment and capital formation.
  - ✓ **Willingness to work, save and invest :** Public expenditure, sometimes, brings adverse effects on people's willingness to work and save. Government expenditure on **social security** facilities may bring such unfavourable effects.
  - ✓ **For e.g.** Government spends a considerable portion of its income towards provision of social security benefits such as **unemployment allowances**, **old age pension**, **insurance benefits**, **sickness benefit**, **medical benefit**, etc.

- **Allocation of resources among different industries & trade :** most of the time, government expenditure proves to be an effective instrument to encourage investment on a particular industry.
  - E.g. If government decides to promote exports, it provides benefits like subsidies, tax benefits to attract investment towards such industry.

2. Effects on Distribution

- The primary aim of the government is to maximize **social benefit** through public expenditure thought achieved only when **the inequality of income is removed or minimized.**
- E.g. Government collects excess income from the rich through income tax and sales tax on luxuries. These funds thus **mobilized /directed towards welfare programmes** to promote the standard of poor and weaker section.

3. Effects on Consumption

- Public expenditure enables redistribution of income in favour of poor. It improves the capacity of the poor to consume.
  - E.g. The government expenditure on welfare programmes like **free education, health care and housing** certainly improves the standard of the poor people. It also promotes their capacity to consume and save.

4. Effects on Economic Stability

- Economic instability takes the form of depression, recession and inflation.
- Public expenditure is used as a mechanism to control instability.
- Expansion of Public expenditure during deflation & reduction of public expenditure during inflation control money supply & bring price stability.

5. Effects on Economic Growth

- The **goals of planning** are effectively realized only through **government expenditure**.
- The government **allocates funds** for the growth of various sectors like **agriculture**, **industry**, **transport,** communications, education, energy, health, exports, imports, with a view to achieve impressive growth.
- Government expenditure has been very helpful in maintaining balanced economic growth.
- Government takes keen interest to allocate more resources for development of backward regions. Such efforts reduce regional inequality and promote balanced economic growth.

Any Questions?

❖**Time allowed 20'**

Class performance survey_2

1. Define public expenditure and account for increase in public expenditure in recent years.
2. Explain the main principle of public expenditure.
3. How can public expenditure increase production and help in reducing inequality of incomes?
4. Show how public expenditure policies achieve the objective of reducing inequalities in the distribution of income and wealth.
5. Discuss how pubic expenditure could be used in curbing inflation.

CHAPTER FOUR

PUBLIC REVENUE

- Sources of Public Revenue :
  - ✓ **Tax sources** in which there is an element of compulsion. It is a compulsory charge imposed by the government, without any reference to the service rendered to a taxpayer => there is no **direct return or quid pro quo**.
    - ✓ E.g. taxes on income, tax on properties (rental income tax, land use tax, etc.), tax on commodities (Customs Duty, Excise Duty, Value Added Tax, Turnover Tax, etc.).
  - ✓ **Non-tax sources** such as services rendered to the public, Fees, Licenses, Fines and Penalties, Special Assessment, Gifts and Grants, etc .
- Every Government imposes two kinds of taxes:
  - (1) Direct taxes, and
  - (2) Indirect taxes

- A direct tax is paid by a person on whom it is levied. In direct taxes, the impact and incidence fall on the same person. E.g. Income tax, tax on agricultural income, professional tax, land revenues, taxes on stamps and registrations etc i.e. taxes levied on income and property.
- Merits of Direct Taxes:

a) Ensures the Principle of Ability to Pay:

b) Reduces the Social and Economical Inequalities:
Prog_taxation_system

c) Certainty: time, mode and amount to be paid are made clear.

d) Economy: cost of collection is low b/se taxpayers directly pay to government.

e) Elastic in nature: tax rate changes with income and unforeseen situation.

f) Create civic consciousness among taxpayers since the taxpayers feel the burden of tax directly

- Demerits of Direct Taxes:
  - ✓ **Arbitrary in Nature**: difficulty in measuring the ability to pay tax.
  - ✓ **Difficulties in the Formulation of Progressive Tax Rates:** There is no scientific base.
  - ✓ **Inconvenience:** the taxpayer has to adhere to many legal formalities.
  - ✓ **Possibility of Tax Evasion**: direct taxes are taxes on honesty.
  - ✓ **Disincentive to Work, Save, and Invest:**
  - ✓ **Expensive to Collect:** the prevention of tax evasion make the cost of collection more expensive

- indirect taxes: the impact and incidence fall on different persons.
  - ✓ E.g. excise duty levied on manufacturer, but it shifts the incidence to buyers by raising selling price .
- Merits of Indirect Taxes
  a. **Convenience:** included in the selling price (taxpayers doesn't fell its burden)
  b. **Wide Scope:**
  c. **Elastic:**
  d. ***Tax Evasion is Not Possible:***
  e. **Substantial Revenue:**
  f. **Progressive:**
  g. **Effective Allocation of Resources:**
  h. **Discourages the Consumption of Articles Injurious to Health:**

- Demerits of Indirect Taxes

a. **Ability to Pay Principle is violated:**

b. **Uncertainty**

c. *Discourages Saving: :*

d. **High Cost of Collection:**

e. **Civic Consciousness is Not Created:**

f. **Inflationary:**

Q. Compare and contrast direct and indirect tax Ethiopian context

Objectives of Taxation

1. Raising Revenue:
2. Removal of Inequalities in Income and Wealth:
3. Ensuring Economic Stability:
4. Reduction in Regional Imbalances:
5. Capital Accumulation:
6. Creation of Employment Opportunities:
7. Preventing Harmful Consumption:
8. Beneficial Diversion of Resources:
9. Encouragement of Exports:
10. Enhancement of Standard of Living:

Characteristics of a Good Tax System

- Tax is a Compulsory Contribution:
- Taxes are levied by the Government :
- Common Benefits to All:
- No Direct Benefit:
- Certain Taxes Levied for Specific Objectives:
- Attitude of the Tax-Payers
- Good tax system should be in harmony with national objectives
- Tax-system recognizes basic rights of tax-payers

- It is commonly believed that there are five properties of a good tax system, these are:
- **Economic efficiency, Administrative simplicity,**
- **Fairness, Political responsibility and Flexibility.**

- There are two distinct concepts of fairness:
- **Horizontal Equity:** individuals who are the same in all relevant economic position should be treated equally.
  - No to be discrimination on the basis of race, colour, etc=>tax or tax structure can be described as achieving an "equal tax treatment of equals."
- Vertical Equity: some individuals are in a position to pay higher taxes than others b/se people deemed to be unequal.
  - There are **three problems** in relation to vertical equity

- Determining who should pay at the higher rate.
- writing tax rules corresponding to this principle
- Deciding how much more he should pay than others.

- Three criteria are commonly proposed for judging whether one individual should pay more than another.

- Some may be judged to have a greater ability to pay;
- some may be judged to have a higher level of economic wellbeing; and
- some may receive more benefits from general government spending.

- The principle of vertical equity says that those who are better off or have a greater ability to pay ought to contribute more to support the government.

- Q. how do we tell which of two individuals is better off or which has a greater ability to pay and what do we mean by equality of treatment?
  - Because of these difficulties economists have looked for other principles on which to base a fair tax. =>One principle is the pareto-efficient taxation that maximize welfare of one (groups) (individuals) subject to government attaining given revenue.

The Ratio, Buoyancy and Elasticity of Taxation

- The Base of a Tax: The measure or value upon which a tax is levied.
  - It has to be defined legally and it is to be quantified for the purpose of determining the tax liability of an individual tax-payer.
  - It should be noted that a tax base may have a time dimension => With the passage of time, a tax base under consideration may grow or may shrink..
- **Buoyancy of a tax:** indicates the factors responsible for an increase in the yield of a tax-over time.

$$B_T = \frac{\%\text{change in tax revenue}}{\%\text{ change in tax base}} = \frac{\%\Delta TR}{\%\,\Delta T_b}$$

- Elasticity of tax is related to the rate of tax and yield of a tax. It refers to the steps taken by authorities in increasing its yield through an extension of its coverage or revision of its rates.
- $$\epsilon_T = \frac{\%\text{change in tax revenue}}{\%\text{ change in tax rate/coverage}} = \frac{\%\Delta TR}{\%\Delta T_r} = \frac{\%\Delta TR}{\%\Delta T_c}$$

Canons of taxation

- Canon of Equality: ability to pay is taken into consideration,
- Canon of Certainty: time, the manner & quantity should be clear and plain to the contributor
- Canon of Convenience: levied and collected in a suitable to way taxpayer
- Canon of Economy: cost of collection should be minimal
- Canon of Productivity: it should encourage productive activity by encouraging the people to work, save and invest.
- Canon of Elasticity: taxes should be flexible
- Canon of Diversity: burden of the tax should be distributed widely on the entire people of the country
- Canon of Simplicity: tax system should be simple, easy and understandable to the common man.
- Canon of Expediency: tax should be levied after considering all favorable and unfavorable factors from different angles.
- Canon of Co-ordination: proper co-ordination federal & state authori
- Canon of Neutrality: should not have any adverse effect.

Approaches to Taxation

1. BENEFIT RECEIVED APPROACH

- The burden of taxation should be divided among the people in proportion to the benefits received from the state.
- Larger the benefits received, larger should be the amount of tax on the beneficiary concerned

Limitation

- Difficulty to estimate the benefit received by an individual from the gov't exp i.e. army, policy,
- Adversely affects poor than rich since poor derives greater benefit.
- per capita tax burden upon the rich and the poor is the same, but rich people have more capacity to pay taxes than poor.

- Not conducive to general welfare b/se it requires redistribution of income in favour of the poorer sections.
- The general tax formula depends on the price elasticity of demand and income elasticity public goods and services
- $\epsilon_p = \frac{\delta Q}{\delta p} \cdot \frac{p}{Q}$ and $\epsilon_\gamma = \frac{\delta Q}{\delta \gamma} \cdot \frac{\gamma}{Q}$ $\Rightarrow$ $\epsilon_\gamma / \epsilon_p$ $\quad \delta p / \delta \gamma$

✓ If $\epsilon_\gamma > \epsilon_p$, *we shuold have to apply the progressive taxation system*

✓ If $\epsilon_\gamma < \epsilon_p$, *we shuold have to apply the regressive taxation system.*

But ϵ_p ***and*** ϵ_y could not be calculated from market price because it is difficult to express the demand for public good and the price of public good and service

✓ selective taxation on beneficiary body => financing system is called **earmarking**

2. Ability to Pay Approach:

- This approach considers the tax liability in its true form-a compulsory payment to the state without quid pro quo.
- a citizen has to pay taxes because he can, and his relative share in the total tax burden is to be determined by his relative paying capacity.
- the burden of taxation should be shared amongst the members of the society so as to confirm the principles of justice and equity.
- The supporters of the ability theory have justified it on three grounds:

- It has been justified on psychological: every tax -payer should feel that he has made equal sacrifice in the payment of tax.
- It has been justified in terms of dmu of income: $\uparrow \boldsymbol{Y} \Rightarrow \downarrow \boldsymbol{DMU_y}$ =>the tax-burden should be more on rich than on poor.
- Ability is known as the faculty interpretation where faculty is represented by income, property and wealth.

  - The real burden of taxation should be equal for all, similarly situated persons ought to be treated equally". But the term "**equal" in equal sacrifice** has been interpreted differently.

- **Equal Absolute Sacrifice:** the total loss of utility as a result of tax should be equal for all tax-payers.
- **Equal Proportional Sacrifice:** the loss of utility as the result of a tax should be proportional to the total income of tax-payers.
  - $$\frac{\textit{Sacrifice to tax Payer A}}{\textit{Income of A}} = \frac{\textit{Sacrifice to tax Payer B}}{\textit{Income of B}}.$$
  - To this principle attempts to relate the sacrifice of tax payment to the capacity of enjoyment or satisfaction resulting from income.
- **Equal Marginal Sacrifice:** the marginal sacrifice for the different taxpayers should be the same. Since marginal utility of a higher income is very lower than the low income, equal margined sacrifice will imply that the person with a higher¬ income will be expected to bear the heavier burden.

3.5. Effects of Taxation

- Taxation primarily aimed to reduce the inequalities of income and wealth and to bring about an equal society. This could depends on two factors
    - Nature of taxation and
    - Kinds of taxes
- Nature of taxation influences the distribution of tax among society in three ways:
    - ✓ **proportional tax on distribution**: A tax whose burden is the same proportion of income for all households. it creates inequalities between them.
    - ✓ **Regressive tax on distribution:** tax whose burden, expressed as a percentage of income, falls as income increases.

- ✓ **progressive tax on distribution:** tax whose burden, expressed as a percentage of income, increases as income increases.
- ✓ This tax system tends to reduce the inequalities in the income and wealth.

Effects of Taxation on the basis of kinds of taxes

- Direct Taxes on Distribution: It attempts to reduce the income of the richer sections and transfers the income to the Government=> favourable distributional effects.
- Indirect Taxes on Distribution: they are levied on commodities =>fall heavily on the lower and middle-income groups =>adverse distributional effects.
- Consumption: Taxes increases the price of the taxed goods =>IE (reduces purchasing power) and SE (incentive for demand of untaxed goods)
- Allocation of Resource of Individuals: income tax
- Regulate the Production And Consumption

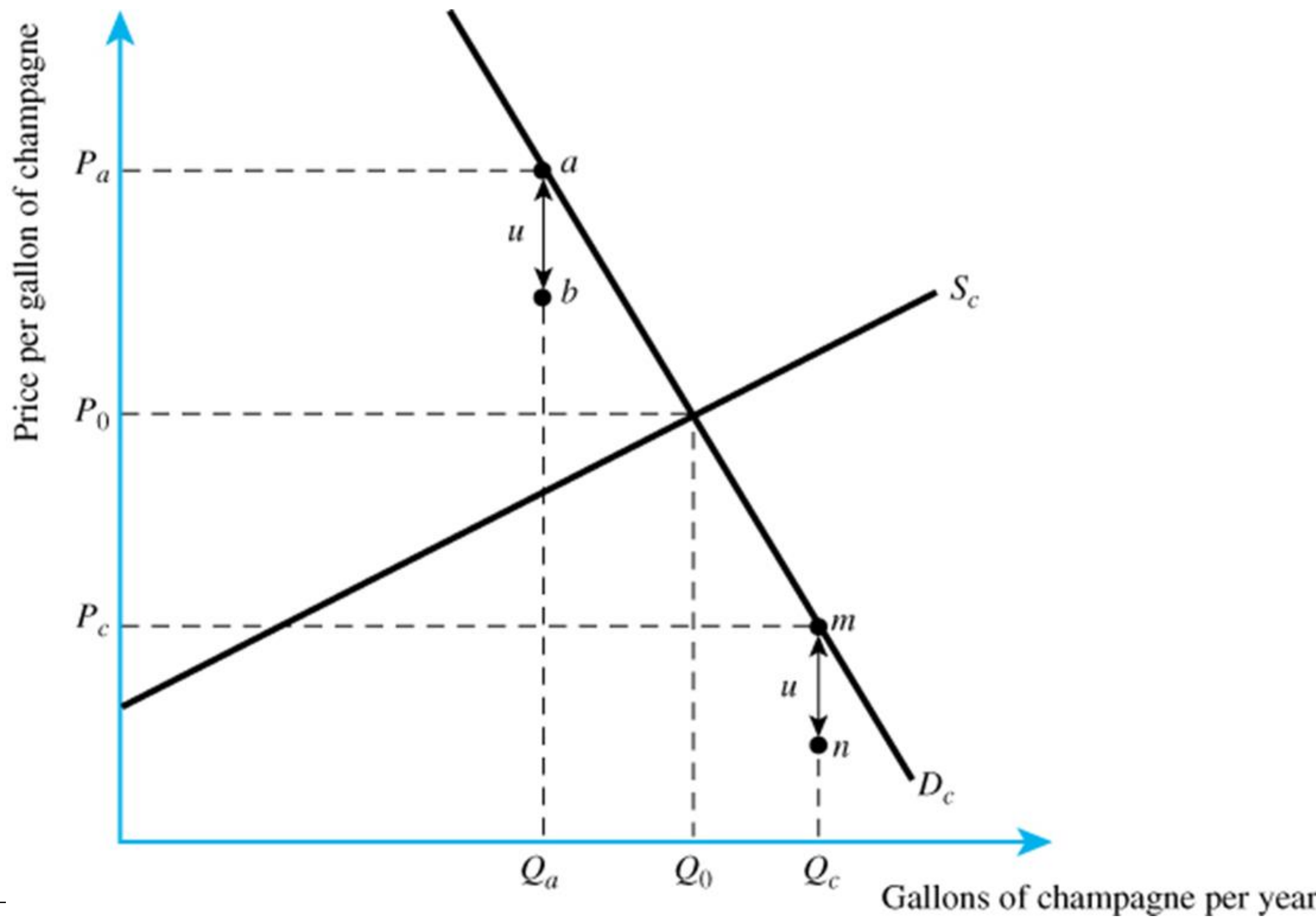
3.6. Impact, Shifting and Incidence of Tax

- As to classical theorist Seligman, the traditional concept of shifting and incidence of tax designed to answer three questions:
  - ✓ Who bears the money burden of tax in the first instance? => ***Statutory incidence***
  - ✓ Is it possible to transfer this money burden of tax to some one else? => ***possibility of Shifting***
  - ✓ Who ultimately bears the money burden of tax? => ***economic incidence***

- **statutory incidence** The burden of a tax borne by the party that sends the check to the government.
- **economic incidence** The burden of taxation measured by the change in the resources available to any economic agent as a result of taxation.

Partial Equilibrium Models: Per-unit Taxes

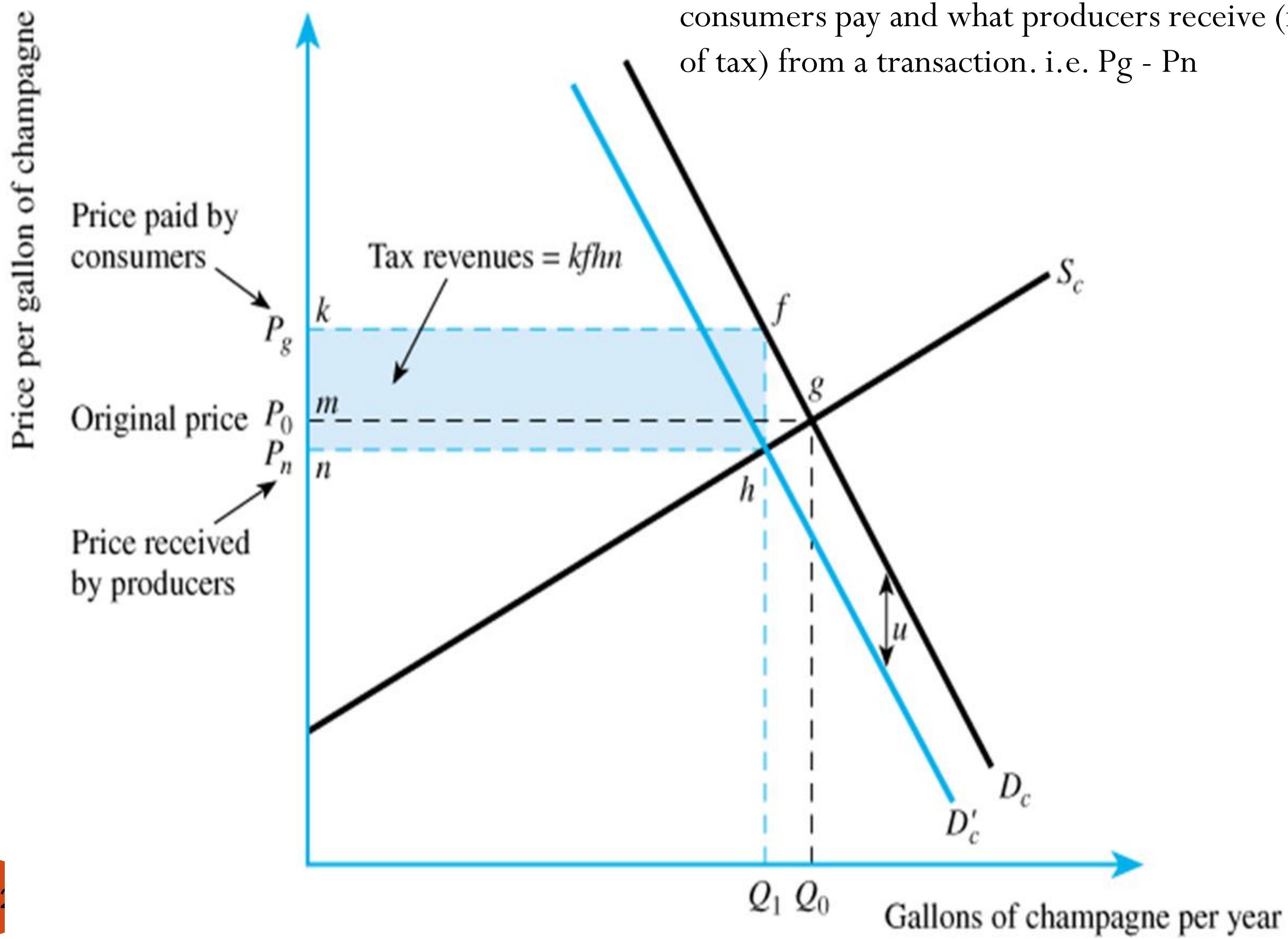
- Unit taxes are levied as a fixed amount per unit of commodity sold. E.g. Federal tax on champagne
- Assume perfect competition. Then the initial equilibrium is determined as (Q_0, P_0)



- Next, impose a per-unit tax of $u in this market.
  - ✓ **Key insight:** In the presence of a tax, the price paid by consumers and price received by producers differ.
  - ✓ Before, the supply-and-demand system was used to determine a single price; now, there is a separate price for each.

- **How does the tax affect the demand schedule?**
  - ✓ Consider point **a** in Figure. **Pa** is the maximum price consumers would pay for **Qa.**
  - ✓ The willingness-to-pay by demanders does NOT change when a tax is imposed on them. Instead, the **demand curve as perceived by producers changes**.
  - ✓ Producers perceive they could receive only **(Pa–u)** if they supplied **Qa.** That is, suppliers perceive that the demand curve shifts down to point **b** in Figure.
  - ✓ Hence the perceived demand curve (D'c) could be shown as follow:

tax wedge: the difference between what consumers pay and what producers receive (net of tax) from a transaction. i.e. Pg - Pn



- Equilibrium now consists of a new quantity and two prices (one paid by demanders, and the other received by suppliers).
  - The supplier's price **(P_n)** is determined by the new demand curve and the old supply curve.
  - The demander's price $P_g = P_n + u$.
  - Quantity Q_1 is obtained by either **D(P_g)** or **S(P_n)**.

$$\boldsymbol{Tax\ revenue = uQ_1}$$

Numerical Example

- ✓ Suppose the market for champagne is characterized by the following supply and demand curves:

$$Q_S = 20 + 2P$$

$$Q_D = 100 - 2P$$

- ✓ If the government imposes a per-unit tax on demanders of $8 per unit, the tax creates a wedge /slice between what demanders pay and suppliers get.

- After the tax, suppliers receive $8 less per pack than demanders pay. Therefore:

$$P_S = P_D - \tau_D$$
$$P_S = P_D - 8$$

✓ Solving the initial system (before the tax) gives a price of *P=20* and *Q=60*. Solving the system after the tax gives:

$$Q_S = Q_D' \Rightarrow 20 + 2\left(P_D - 8\right) = 100 - 2P_D$$
$$P_D = 24, P_S = 16, Q = 52$$

In this case, the statutory incidence falls 100% on the demanders, but the economic incidence is 50% on demanders and 50% on suppliers

- ✓ **Incidence of a unit tax is independent of whether it is levied on consumers or producers.**
- ✓ If the tax were levied on producers, the supplier curve as perceived by consumers would shift upward i.e. **consumers perceive it is more expensive for the firms to provide any given quantity.**
- ✓ **Taking the above example;**

$$P_D = P_S + \tau_S \Rightarrow P_D = P_S + 8 \Rightarrow P_S = P_D - 8$$

☞ The **statutory incidence** of a tax tells us nothing about the economic incidence of it.

2. Partial Equilibrium Models: Ad-valorem Tax

- ✓ An ad-valorem tax is a tax with a rate given in proportion to the price.
- ✓ A good example is the sales tax.
- ✓ Graphical analysis is fairly similar to the case we had before.
- ✓ As with the per-unit tax, the demand curve as perceived by suppliers has changed, and the same analysis is used to find equilibrium quantity and prices. (ad-valorem tax levied on demanders.)

Numerical Example

- ✓ Returning to our previous example, with an ad-valorem tax (τD), the system is written as:

$$Q_S = 20 + 2P_S$$
$$Q_D = 100 - 2P_D$$
$$P_S = (1 - \tau_D)P_D$$

- ✓ If the ad-valorem tax on demanders was 10%, then relationship between prices is:

$$P_S = 0.9P_D \Rightarrow$$

$$Q_S = Q_D \Rightarrow 20 + 2(0.9P_D) = 100 - 2P_D$$

$$P_D = 21.05, P_S = 18.95, Q = 57.89$$

Recap of Taxation

- Partial Equilibrium Analysis
  - Per-unit taxes
  - Ad-valorem taxes

  - ***Questions***

➢ *Who bears more tax burden when demand curve is perfectly elastic, perfectly inelastic, elastic and inelastic both under per unit taxes and Ad-valorem taxes*

CHAPTER FIVE
GOVERNMENT BUDGETING

- As one scope of public finance; this chapter deals on the government budget.
- There was a time when the activities of government were few and, hence, much importance was not attached to government budgeting. But, in the modern times when countries are fast growing, the activities of public authorities have expanded and government budgeting has become a chief instrument of economic development.
- In this chapter issues like meaning of the government budget, theories of government budgeting, classification of budget and the role of budget will be discussed.

5.2. Meaning and purpose of government budget

- Today, the government budget is much more than a statement of income and expenditure of public authorities. It is not a reflection of taxation and public expenditure policy only, but also a plan for future course of action.
- According to **Bastable**, budget has come to mean the financial arrangements of a given period, with the usual implication that they have been submitted to the legislature for approval.
- A budget is a short term plan which explicitly mentions the programs that are to be taken up in the course of the fiscal year, it specifies what part of different programs to be

- ✓ completed with in the year, it clearly draws up schemes of revenue sources for these programs and how this programs to be implemented by the responsible bodies.

- ✓ Though budget is a program for future action and is generally framed for a year, it presents the details of expenditure, taxation and borrowings for **three** consecutive years, i.e., the actual receipts and disbursements of the previous year, the budget and revised estimates of the current year and the estimated receipts and expenditures of the coming fiscal year.

- For example, the current year is 2005-06 and the budget is to be framed for the fiscal year 2006-07, then the estimated receipts and expenditures, i.e., budget estimate for 2006-07 will be accomplished side by side with the actual budget account of receipts and expenditures for 2004-05 and the budget as well as revised estimates for the current year 2005-06.
- Though budget estimates for the coming fiscal year contain proposals of taxation, borrowing and public expenditure, the government might face shortage of funds in course of implementation of the budget programs due to some important additions of activity. This might be in the necessity of fresh proposal of revenue receipts and expenditure which are made in what is called a "Supplementary Budget".

The main elements that present in budget are:

- It is a statement of expected revenue and proposed expenditures of the authorities concerned.
- It requires some authority to sanction. For example after it is prepared, the parliament has to approve the public budget.
- It has a periodicity which generally in one current year. For example: the 2008 Ethiopian budget year extends form Hamle 1, 2007.E.C. up to Sene 30, 2008 E. C.
- It sets procedure in which the collection of revenue and administration of expenditure is to be executed.

Characteristics of good budget

A good budget should be

1. Is the one that will enable the legislature and the people to appreciate the proposals of receipts and disbursements in the context of prevailing state of country's economy.
2. Is the one that will draw up programs of action in such a manner that the proposals can feasibly be translated into realization.
3. It should not be over-ambitious and should be within the means, financial and otherwise.
4. it should depict a clear picture of the state performance relating to programs of the government in the previous year so that it becomes possible to see what have been achieved, what have been the shortcomings and decide as to what course of action should be adopted in the budget plan.

Stages of budget implementation: Procedures of budgeting

The budget undergoes through different stages of action.

1. **Budget preparation:** The budget frame is structured. The government asks different departments to submit their proposed programs of action for the coming year. After all such proposals are received, they are consolidated into an overall budget plan.
2. **Approval of budget**: The budget is presented in legislature for its approval. At this stage, the legislature carefully considers the proposals. There may be additions or alternations in budgetary provisions as considered necessary by the legislature.

3. **Execution of budget**: The implementation of the budgetary programs is the next stage. After the budget is approved, the government is authorized to take action on the budget. Revenues are raised and public expenditures relating to the budget plan are made.
4. **Auditing of Budget**: The last stage, a scrutiny and parliamentary committees look after how best financial abuse can be prevented.

Purpose of government budget

- To achieve any purpose, a planning is necessary. The government needs to achieve many goals all of which cannot be attained at a time. A proper plan of action is, therefore, necessary.
- The purpose of government budget is varied. There are a number of objectives which the budget seeks to attain simultaneously. The overall purpose is to use the budget as instrument of government economic policy.

The following are the chief purpose of the budget.

- A budget is such a plan which explicitly mentions the programs that are to be taken up in the course of the fiscal year.

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- **Secondly**, implementation of a program requires availability of necessary funds. The extent of availability depends upon the budgetary sources of revenue
- **Thirdly**, to achieve efficiency in public expenditure as physical targets of achievement are specified in the budget.
- **Fourthly**, most of the countries, particularly in developing world, today have taken up their task of their economic development in the phased manner of five year plans and long-drawn perspective plans. The annual government budgets are framed with an eye to the provision of necessary funds for the purpose.

- **Fifthly** to avoid arbitrary use of resources and corruption
- **Lastly**, the government budget serves the purpose of public accountability of funds to a considerable extent. Budget serves as a powerful weapon of financial control in respect of both collection of revenues and disbursement of public expenditures.

5.3. Theories of government budgeting

There are two theories of government budgeting: These are

- **1. Classical Theory of balanced budget :** The classical theory of balanced budget is based on the assumption of full employment on one hand and the 'laissez-faire' doctrine on the other.
- Moreover, with the philosophy of 'laissez-faire' followed, the functions of government are limited to the minimum and, hence, most of the economic activities are performed by the private sectors.
- Under such a situation, the size of the budget is always small and the budget should always be balanced.

What are the justification behind classical idea?

(a).If there is budget deficit and it is financed via public borrowing by withdrawing funds from private sector. Such diversion of resources will bring down over all economic efficiency.

(b).Another justification of the balanced budget is that since deficit financing through borrowing is easy, the practice of unbalanced budget will encourage expansion of government activities as against the classical notion of small budgets.

(c)Thus, public borrowings are expensive; they require double payment in the form of debt charges as well as repayment. This will reduce the capacity of government to spend for more important purposes

There are two views regarding the balanced budget theory.

i. According to one view, the balancing of budget is brought by equating current revenues with current expenditure. There is no role of borrowing in the budget.

ii. In the other view of balanced budget, governmental receipts include public debt also. The budget has, however, two parts – current budget and capital budget, both of which are balanced. Thus, current expenditures are financed by current revenues while capital expenditures are financed by public borrowing. Thus, the overall budget is balanced.

- **2. Modern Theory of ‘Managed Budget’:**As against the above, the modern theory of Managed Budget does not agree with the classical assumption of full employment. The celebrated Keynesian theory states that full employment is only a limiting case and is not automatically attained. Hence, in order to ensure employment of unutilized and idle resources, a flexible budgetary policy is needed.

- When depression and unemployment occurs in the economy due to deficiency of effective demand, the need is to inject additional purchasing power into the economy so that effective demand, hence employment of production factors are enhanced. This objective can be realized through a deficit budget policy; because such a budget will put additional purchasing power into circulation and the aggregate consumption expenditure will increase.
- This will raise prices and profit prospects of the business community which will employ available unutilized production factors to increase production and meet the increased demand.

- When the economy, on the other hand, suffers from inflation due to excess purchasing power over and above the amount necessary to deal with the transaction of available goods and services at prevailing prices, the necessity is to pump out the excess amount from the economy. This can be done by surplus budget which will raise more revenues via taxes and borrowings and lower down government expenditures.
- The process will cure the ills of inflation and bring about economic stabilization. When there is neither inflation nor unemployment, the budget should be balanced. Thus, there should be flexibility in the budget policy according to the modern economists like Keynes, Hansen, Dalton and others.

- As the modern economists whether the budget should be balanced or a deficit or a surplus should be decided by the prevailing economic circumstances. Hence, the modern theory is called the principle of managed budget.
- The main difference between classicalists and modern economists in so far as the principle of government budgeting is concerned lies with their views on savings and investment.
- To the classical economists, saving is always equal to investment because the former is automatically converted into the latter. In such a system, there is no unemployment.

- To the modern economists, however, savings and investment need not be equal. They are determined by different factors and, more normally, they are different.
- When savings become more than investment, deficiency of effective demand develops and unemployment occurs due to fall in production. The economy is then faced with depression.
- On the other hand, when investment becomes more than saving, the aggregate purchasing power in the economy increases and the available output cannot absorb it at the prevailing price level. Thus, there becomes inflation.

- It is only when savings are equal to investment, the stabilization function of the economy remains undisturbed and the society suffers neither form unemployment nor from inflation.
- Under such circumstances, the modem theory argues, the budget policy of government should be flexible, allowing for balanced budget when there is neither inflation nor unemployment i.e., when savings and investment are equal and for unbalanced budget when the economy suffers from either inflation or unemployment.
- Happens when savings and investment are unequal.

5.4. Budget Framing

- A government budget is framed in the shape of a financial plan which is a statement of income and expenditure relating to various economic and other activities that the government intends to perform in the coming period.
- The structure of budget frame may be different in different countries.
- ***i)Revenue and Capital budget.*** Many countries, particularly the less developed ones, prepare budget in two parts, viz., the revenue and capital budgets.

- The main sources of government revenue are taxes and borrowings from internal sources on one hand and loans and grants from other governments and international agencies on the other.
- In the revenue budget, the current expenditure is met out of domestic taxation, while the expenditure on capital account is made out of domestic and foreign borrowings.
- Government obligations for some extra-ordinary expenditure particularly in the initial stages of development arise on account of economic overheads like roads and railways, electricity generation, schools and hospital buildings and facilities and other investment projects which require special revenues and are generally financed by borrowing.
- Such expenditures and receipts are shown in the capital budget.
- The structure of revenue and capital budget giving information on items of receipts and expenditures are explained in the lecture note your are provided.

- Since capital projects are very important as they will form the sources of regular flow of productive services in future, the long drawn financial plan and its consequence on the economy over years ahead can be read from the capital budget.
- Such a separation of the budgets secures expenditure discipline and, hence, the lenders can form a clear idea about the status and solvency of the country.
- It is, therefore, very important for developing countries to frame such a type of budget.

ii. Incremental and Zero-base Budgets.

- The budget, to be meaningful, should be appraised occasionally and the requests for grant of fund should be properly reviewed both at administrative and legislative levels.
- But, there is a general tendency to confine the exercise of scrutiny within the area of changes proposed for particular budget items rather than to extend over every aspect of the whole programme structure.
- Past levels of expenditure are taken as given and only new additions or reductions from the past outlay are examined.

Cont'd…

- This is what is known as 'incremental budgeting' which should not be allowed to be in vogue since it cannot ensure proper allocation of economic resources.
- However; such a focus on increases and reductions can well lead to hardening of the bureaucratic arteries, and maintain old programmes remain unexamined and hence no substantial changes are made in the past budget rather examine the expenditure components in the light of anticipated results.
- This deficiency of incremental budgeting is done away by what is called 'Zero-base budgeting'.
- In Zero-based budgeting required a new Budget to be compiled every year

iii) Plan and non plan budgets.

- Most of the underdeveloped and developing countries pursue planned economic development through periodic plans.
- The basic aim of economic planning is to achieve rapid development in different sectors like agriculture, industry, power, transport, etc. and to raise per capita income, remove poverty, unemployment and regional disparity so that social justice can be achieved.

E.g. Ethiopia practices of five-year plans.

- A part of the budgetary receipts and expenditures is devoted to the administration and implementation of the plans. The part of budgetary receipts which goes to finance the planned expenditure and the outlays on planned developmental heads constitute the plan budget, while the remaining part of the budgetary resources and expenditures is referred to as the 'Normal' or 'Non-plan budget.'

iv.Balanced and Unbalanced Budget

- Government budget may be balanced or unbalanced. Unbalanced budget may be either a surplus budget or a deficit budget. When the government revenues are equal to government expenditures, the budget is balanced and when they are not equal, the budget is unbalanced.

P. E. Taylor explains the nature of budget balance in the following terms.

- (a) A budget is balanced if during the budget period revenue receipts are exactly equal to cost payments.
- (b) If revenue receipts for the budget period are greater than cost payments, the difference is budget surplus and

Cont'd

(c) if revenue receipts for the budget period are less than cost payments, the difference is budget deficit.

- In the advanced countries, a balanced budget is pursued at a time when the economy suffers neither from inflation nor from unemployment or depression so that the objective of maintaining full employment with price stability is achieved.
- When the economy suffers from inflation, a surplus budget is operated while a deficit budget is pursued when the economy suffers from unemployment.
- The developing countries suffer normally from idle resources and, to make their proper use, additional expenditures are incurred and, hence, they mostly pursue deficit budgets.

5.5. Modern Classification of Budget

- There are many governmental functions on which expenditure is planned in the budget. To get a fuller picture of the various implications of budget frame, a proper analysis is necessary.
- Modern budgeting recognizes this need and attempts to classify the budget from different analytical angles.
- The Economic Commission for Asia and Far East explains this necessity in the following words. The systems of classification provide information on the working of budgetary process.
- Since such a process has a multitude of functions and objectives, different types of classification used in the purpose of appropriation, programme management and review, evaluation of plan implementation, and financial and economic analysis either in single or in combination, are needed.

- The various ways in which the public sector transactions can be classified are (a) by organization, (b) by object, (c) by function, (d) by their economic character, (e) by programme and (f) by origin of the purchases affected by the government.
- Accordingly, from different analytical view points, we may classify the budget in the following ways
- **I. Functional Classification.** A better idea of government expenditure is obtained from functional classification since it goes by purpose of expenditure rather than by departments of government. As the United Nations says, “It classifies public expenditure by specific governmental function such as defense, health, education, promotion of agriculture, etc”.

- It is the way of preparing budgets in parts and presents each part separately in order to evaluate specialize function of the government
- **Economic Classification.** Economic classification seeks to categorize the government receipts and expenditures into different classes of economic significance so that the pattern of resource allocation and its impact on the rest of the economy can be readily grasped.
- This classification shows how expenditure for a particular purpose, say, health, is divided between such classes of economic significance as current expenditure on goods and services, capital formation, current transfers, capital transfers and loans.

- It also shows how expenditure belonging to a particular category, say, capital formation, is designed to serve different purposes.
- such classification provides important macro-economic information that are essential for construction of national accounting data.
- Economic classification broadly categorizes public expenditure into two classes, viz., current expenditure and capital expenditure.
- Current expenditure is divided into two classes each of which, is sub divided into four classes.

- **iii. Programme Budgeting Classification.** Under this classification, the budget would frame a programme structure to attain a particular objective and specify spending to attain it.
- We may think of all those expenditures allocated to the set of programmes under a particular objective as belonging to a total spending agency which is responsible for attainment of the objective.
- If, for example, the objective is poverty removal, these expenditures would constitute the poverty removal programme. It is important to note that since these expenditure agencies are inter-related, some programmes expenditure would draw support from a number of agencies.

- To explain the anatomy of programme budgeting, A more detailed programme budgeting will break down different programmes what are known as programme elements.
- In this way, there may be as many specific objectives as would be helpful in securing the general objective of purpose.
- For example, 'Enrolment Incentive Programme' may be broken down into such programme elements as (a) supply of school uniform, (b) free tuition and free supply of books, (c) scholarship scheme and (d) mid-day meal scheme.

- Such a programme element is considered as the smallest unit of analysis. A fully developed system of programme budgeting requires expenditure to be allocated against each of these programme elements.

iv. **Performance Budgeting Classification.** The scientific treatment to budget making is well demonstrated in the programme and performance budgeting.

- **Burk head** defines performance budget as one which presents the purposes and objectives for which funds are requested, the costs for programmes proposed for achieving these objectives and quantitative data measuring the accomplishments and work performance under each programme.

- The difficulty of functional budget to detect whether the anticipated benefits from expenditure is really materialized is overcomed by the performance budget.
- Its main purpose is to measure the benefits and to relate them to costs incurred. The targets to be achieved during the budget period are set as objectives.
- Thus, a determination of attaining a specific amount of benefit from a particular outlay inevitably takes into consideration some sort of cost-benefit analysis on the basis of either past performance or comparative study of the relevant market situation.

- In the mixed economy of developing countries where a part of the budget is concerned with planned development programmes and a time bound achievement of objectives is all the more necessary, the role of performance budgeting is paramount.
- This classification also helps to detect the pockets of inefficiency in administration as well as resource allocation so that corrective steps may be designed to improve the efficiency level of administering and executing the development programmes.

5.6. Budget as an Instrument of Economic Policy

- Though both developed and underdeveloped countries face different circumstances of economic problems ;government budget is an important instrument of economic policy in both countries.
- Budget serves as an important device to achieve economic development in these countries also.
- The following are the important ways in which the government budget can influence the economy of a country.

1. ***Revenue Raising Device.*** The government requires enough revenue to discharge its fiscal responsibility.

- Modern countries have increasingly become welfare states with larger and larger state activities coming under the fold of public sector. Hence, resources have to be found in sufficient quantity.
- Budget secures this purpose through a financial plan. The receipts side of the budget clearly mentions the sources and the extent of funds for the purpose of financing state activities.

2. ***Building of Economic Overheads: budget*** has a tremendous influence on the industrial and agricultural development via proper economic infrastructure.

- Because; without proper transport and communication system, large scale generation of electric power, establishment of basic and key industries and proper training facilities for workers and entrepreneurs, industrial development is not possible.
- Therefore, these facilities are supplied free of direct charges through the budgetary provisions.

3. ***Diversion of Resources to More Useful Production: Free*** market mechanism leads to production of those goods, mostly luxury goods which give maximum profit to private enterprises.

- It is, therefore, necessary to divert resources to the production of more useful goods and services, particularly of the kind of mass consumption ones. This can be done by government interference through the budget.

For example; Imposition of heavy tax on harmful and less essential goods and tax exemption or tax concessions granted to more essential goods and services can be used for diverting resources.

4. *Proper Allocation of Resources.* Most efficient allocation of resources is given by the equality between marginal cost and price which is possible only under perfect market conditions.

- Countries seriously suffer from mal allocation of resources when market conditions is dominated by imperfect market.
- To correct this misallocation, the government has to interfere either in the form of production subsidy or supply of goods and services by public authorities.

5. ***Balanced Development: Underdeveloped*** countries suffer from regional imbalance in economic development.

   E.g. Urban bias

- The government can correct this geographical imbalance by setting up public sector industries in backward areas.

6. Income and Employment: Since underdeveloped countries are low income economics, people live in poverty and, hence, saving and investment is very low.

- Income of the people can be increased only through increased productivity and production. Budgetary provisions can go a long way to achieve this.
- When agricultural technology is improved through budgetary programmes, the income of the people engaged in agriculture rises. People get gainful employment in the sector.
- Improvement in small scale industries in the rural areas and setting up of public sector industries in the backward regions will increase employment opportunities in these industries.
- The budgetary provisions of employment-related tax concessions can influence creation of employment opportunity in the private sector also.

7. ***Saving and Investment.*** In underdeveloped countries, the level of saving and investment is very low due to low level of income, marginal propensity to consume is very high and, hence, the mass people cannot save.

- Moreover, without increased saving and investment, economic growth cannot be achieved. Public saving is, therefore, necessary. Taxation of various types serves this purpose. The saving and investment of private individuals are also influenced by the savings-investment-related tax concessions and other budgetary subsidy programmes.

8.*Poverty Removal.* Poverty removal programme is a part and parcel of the budget in underdeveloped countries. All expenditure measures are designed in such a way that they directly or indirectly influence reduction of poverty in the economy.

- Spending budgetary resources are on account of education, whether general or technical and vocational or on health measures, land reforms, flood control and irrigation, etc
- Budgetary programmes used for increasing employment opportunities and creation of community assets like employment insurance, social security, consumption subsidy, public distribution system and price support programmes, low-income housing, input supply, agricultural wage restructuring, etc.

9. ***Full Employment and Price Stability.*** An important function of the budget is to secure the objective of full employment and price level stability. In the underdeveloped economies where resources are not fully employed public expenditure programmes and tax incentive measures are put into operation to secure full employment.
10. ***A Check to Misuse of Public Funds.*** Since budget is a financial plan relating to public revenues and public expenditures for the budgeted period, it imposes definite restraints on the tax gatherer and public funds spender.

Nice time with reading

CHAPTER SIX
PUBLIC DEBT

In this chapter we will cover five sections:

1) Nature and kinds of public debt.
2) Effects of public debt.
3) Burden of public debt.
4) Redemption of public debt.
5) Public debt in a developing economy.

6.1. NATURE AND DEFINITION OF PUBLIC DEBT

- Public debt is of recent growth and was unheard of prior to the 18th century.
- In modern times, however, borrowing by the States has become a normal method of government finance along with other sources such as taxes, fees, etc.
- The government may borrow from banks, business houses, other organizations and individuals. Besides, it can borrow within the country or from outside.
- The government loan is generally in the form of bonds or treasury bills which are promises of the government to pay the sum of principal along with its interest rate to the holders of these bills .

- Borrowing is undertaken so as to provide funds for financing a current deficit. This definition explains the **three** features of public debt.
  - Public debt arises in the form of borrowings by the treasury(state)
  - The government borrows a certain amount now but promises to pay in the future not only the principal amount but also the interest.
  - The government borrows when there is a budget deficit i.e. public expenditure is more than revenue.

6.2. CLASSIFICATION OF PUBLIC DEBT

- Public debt can be classified in different ways based on different factors like sources of borrowing, purpose of loan, repayment duration of loan, nature of contribution, marketability.

1. **Source of Borrowing**

There are two sources of public debt, internal and external.

a. Internal debt: refers to public loans floated within the country, Internally, the government can borrow from individuals, bank financial institutions such as commercial banks, insurance companies and the central bank and non-bank financial institutions.

b. **External debt:** refers to the obligations of a country to foreign governments, or foreign nationals or international institutions.

Government may borrow from other countries too to finance war expenditure or to pay for development projects or to payoff adverse balance of payments. Two important sources have become prominent. They are:

(a) international financial institutions, *viz.*, the IMF and World Bank, which give loans for short term to payoff temporary balance of payments difficulties and for long term for development purposes; and

(b) Official development assistance (ODA).

2. **Purpose of the loan:** Based on purpose public debt is categorized as Productive and unproductive debt.

- Public debt is said to be productive if the investment yields an income which will not only meet the yearly interest payments of the debt but also help to repay the principal. Public debt can be said to be productive in another sense too.
- The government may undertake certain projects through loans which may not be productive in the sense given above but which may be really useful to the community – for example, a railway line connecting a backward region, an irrigation work to prevent famine and so on. In this sense all public debt is productive.
- But in many cases, public debt may be contracted during war-time to finance war. Such debt is unproductive because it does not create an asset; it is a dead-weight debt or a useless burden on the community.

3. Time Duration of loan

According to time duration of the loan, public debt can be classified into short term, medium term, and long term loans.

a. **Short term loan:** is usually incurred for a period varying from three months to one year.

- Usually government gets such loans from the central (national) banks by using treasury bills. These loans are also called 'ways and means advances'.
- Such loans are obtained to overcome temporary deficits in payment to be made by the government in the course of one year to pay salaries etc.

b. **Medium term loans**: are those which are obtained for more than one year but less than ten years.

c. **Long term loans**: the governments is usually borrow long term loans for more than ten years.

The maturity period is long so that the rate of interest tends to be higher on the long term loan than short term loan. Long term loans are incurred to finance development schemes.

Moreover; based on duration public debt can be classified as

a. **Funded debt** is a long-term debt, undertaken for creating a permanent asset and the government normally makes arrangements about the mode and the time of repayment.

b. **Unfunded and floating** debt is a relatively short-period debt meant to meet current needs. The government undertakes to pay off the unfunded debt in a very short period, say, within six months. Treasury bills are examples of unfunded debt. The rate of interest on unfunded debt is lower.

6.3. CAUSES OF PUBLIC DEBT: WHY PUBLIC DEBT IS INCURRED?

- Public loans in modern times are necessary to meet difficult situations.

1. Modern governments do not have any large accumulated balance or treasure to meet a budget deficit. Normally, the annual expenditure of the government should be and is met by annual income. But because of many circumstances the yield from taxation and other sources may not be equal to the actual expenditure.
2. there may be unplanned and unexpected emergency situations like major fires, floods and famines. It may not be possible to secure funds through taxation.

Short-term borrowing in anticipation of tax collections in subsequent years is ordinarily used in the above two circumstances.

3. Another factor which necessitates public loans is war. Governments, therefore, have to borrow extensively from individuals and institutions towards war financing. In fact, the enormous increase in public debt in most countries is due mainly to the First and Second World Wars.
4. public borrowing is considered very useful to remedy a depression. Business depression and unemployment are generally due to deficiency of demand for goods and services. Keynes advocated increased public expenditure financed through borrowing and not through taxation. For, while taxation will reduce the incomes of the people and their demand still further, borrowing will have no such effect. Besides, loans enable the government to make use of idle and unutilized funds of the public.
5. Public loans are resorted to for development purposes.

Underdeveloped countries interested in the development of their natural resources to the optimum *level* find public borrowing a very useful device to finance the various development projects.

6.2. EFFECTS OF PUBLIC DEBT

- We should clearly distinguish economic effects of public borrowing from non economic effects of public debt.
- Borrowing is one of the four alternatives available to the government as method of securing funds such as taxation, profits from state enterprises and money creation.
- The effects of borrowing, therefore, relate to government expenditure financed through borrowing are different from the effects of a similar programme financed by taxation.
- On the other hand, the effects of public debt refers to the effects on the economy which are caused by the existence of public debt, after it had been incurred.

- Public borrowing from individuals and firms has effects on all aspects of economic life. They may be considered as follows:

1. Effects on consumption: The effect of public debt on consumption depends upon how it is financed by individuals.

- If they lend to the government out of their idle savings, consumption is not affected.
- If they buy out of past savings it has only a limited impact on present expenditure.
- But if they lend by cutting present savings, it may make them feel less secure and so they may reduce consumption.

2. Effects on Production and Investment. The effect of public debt on production depends upon whether it affects private investment or not.

- If people buy government bonds by selling their shares or debentures in private individual firms, there is an adverse effect on private investment.
- But if the money borrowed by the government is for productive purpose, over all production is not affected. But if it is used for wasteful or non-productive purpose, total investment is affected negatively.
- If people buy government bonds by taking away their bank deposits, bank's lending capacity is reduced and this again affects private investment.

- If the government uses the funds for productive purpose, it can repay it out of income generated by these projects. But if pubic debt is used for unproductive purposes, it can be repaid only by through additional taxation in future which affects future consumption as well as production by reducing future disposable incomes.
- if public debt is used for welfare schemes, it may increase people's efficiency to work and thus improve productive capacity.

3. Effects on Distribution. Public debt is bound to have effects on distribution of income because it involves transfer of purchasing power from one sector to another.

- Hence redistribution of income effects of public debt depends upon whether the taxpayers and the bond holders are the same people or not.
- If the bondholder and taxpayers is the same people, theoretically there will be no effect on redistribution of income.
- Usually government bonds are purchased by the richer section. But the burden of tax to repay the debt falls on all sections including the poor.
- To that extent the inequality of income will increase.

- If the public debt is used for public welfare programmes especially the poor, inequalities of income decreases. But if public borrowing creates inflation, the beneficial effects of redistribution will be neutralized as prices rise.

4.**Effects on National Income**. Public debt has an adverse effect on national income only if private investment is adversely affected. However if government expenditure is incurred on capital goods, it gives incentive to greater production and this again increases the income.

5. **Effects on Resource Allocation.** Unlike tax finance, public debt has little effect on resource allocation. Public borrowing curtails business investment activities but the decline of business investment varies from one industry to another. Allocation of resources is not affected much.

- **6. Effects on Liquidity.** Effect of public debt on liquidity is favorable if the governments bonds are liquid assets which can be sold in the market whenever the bondholders need money. So public debt increases the volume of liquid assets in the country.

7. **Effects on Money Market.** The government has to compete with the private sector for fund. Usually if the rate of interest paid by private sector on borrowing is high, the government also will have to rise its interest rate to get much borrowing.

6.3.BURDEN OF PUBLIC DEBT

6.3.1. Burden of Internal public debt

- The burden of public debt is open for debate.
- There are two extreme views: the traditional view and its counterarguments; modern view
- The traditional view is that public debt, as in the case of private debt, imposes a real burden on the community. How?

(a) Public debt necessitates a transfer of funds from the private sector (individuals and companies) to the government which can reduce the performance of

(b) Public debt is a more costly method of financing public expenditure than taxation because of the additional cost of interest payments.

(c) Public debt tends to transfer the burden of a particular outlay to future taxpayers; and

(d) Excessive borrowing by and huge public debt of the government, may undermine the creditworthiness of the government.

Therefore the traditionalists,, conclude that public debt should be kept to the minimum and redeemed as early as possible.

- The other extreme view-held by some modern writers – is that public debt(especially internal debt) is not a burden, since payment of interest and the use of taxes to meet the same involve simply a transfer of funds between people within the country.
- People will be receiving interest from the government for the bonds they hold but the will be paying taxes to meet interest obligations of the government.
- In other words, it is almost like transfer of funds from one pocket to another, or from one individual to another.
- The result is that the internal public debt does not impose a real burden on the community.

- Both these apparently conflicting views on the burden of public debt can have their own critics .
- For this Purpose, to Dalton's adopt distinction between direct and indirect burden of public debt and between money burden and real burden of public debt. We can, therefore, speak about four types of burdens of public debt, *viz*.

(a) Direct money burden,

(b) Direct real burden

(c) Indirect money burden, and

(d) Indirect real burden.

(a) ***Direct Money Burden.*** Public debt involves payment of interest and repayment of the principal by the government, who will have to raise the necessary amount by way of taxes.

- The direct money burden of public debt consists of the tax burden imposed on the public and it is equal to the sum of money payments for interest and repayment of principal.
- Actually, in the case of an internal debt, there can be no direct money burden because all the money payments (taxes) and receipts (interest) cancel out.

- Suppose the government of Ethiopia collects taxes to the extent of Birr 100 million a year from the general public towards its debt services. This amount is transferred from the public to the government. But the latter distributes this amount to the general public by way of interest on its loans. Thus servicing of internally held public debt is reduced to a series of transfers of wealth between parties – total receipts will necessarily be equal to total payment.
- There would, therefore, be not net direct money burden in internal debt.

- On the other hand in the case of an external debt, money payments by the debtor nation (say Ethiopia) are to external creditors (say, Americans); these constitute clear direct money burden of public debt on the debtor nation.
- ***(b) Direct Real Burden.*** When we refer to monetary transfers between taxpayers and creditors we are speaking about the direct money burden. But when we refer to the distribution of taxes and public securities among the public, we are referring to the real burden of public debt.

- We know that people hold public securities (and get interest from the government) but they also pay taxes towards the cost of the debt service.
- If the proportion of taxation paid by the rich towards the cost of the debt service is smaller than the proportion of public securities held by them, while on the other, if the proportion of taxation paid by the poor and middle income groups towards the cost of the debt service is greater than the proportion of public securities held by them, there is a direct real burden from public debt.

- In this case, public debt has been responsible for worsening inequality of *incomes.*
- Suppose, on the other hand, government bonds and securities are held by the working classes and the middle income group (and, therefore, they receive the interest) while the taxation towards the cost of debt service is paid by the rich (by way of income tax and the other highly progressive direct taxes) then public debt actually tends to decrease the *inequality* of incomes in the country.
- In this case there is actually no direct real burden but there is a *direct real benefit to the* community.

- Thus whether internally held public debt imposes a direct real burden or provides a, direct real benefit will depend upon the distribution of taxation on the one hand and ownership of public securities on the other, among different sections of the community.
- Dalton argues that in most modern capitalist or mixed economies, with large inequality of incomes, internally held public debt will generally result in transfer of money from poorer to richer sections of the community and hence will impose a direct real burden because:

- *(i)* the bulk of the government bonds and public securities will generally be held by the richer sections of the community, directly or indirectly, (through their ownership of banks and insurance companies which hold public securities among their assets); and
- *(ii)* Even the most progressive of taxation fall heavily on rich people cannot counterbalance the income derived by richer classes in holding public securities.

- We may now refer to the direct real burden of external debt. In the case of external debt, there is a transfer of payment from the debtor country to the creditor country.
- The direct real burden refers to the loss of economic welfare which these money transfers involve. In case the money payments for servicing external debt are made by the richer classes, the direct real burden will be less; if, on the other hand, they are contributed by the poorer sections of the country, the direct real burden will be much more.

- ***(c) Indirect money and real burdens.*** Heavier taxation to meet debt charges may reduce taxpayers' ability and desire to work and save and thus check production. Heavy debt charges may also force the government to economies on public expenditure as might promote production. In case these adverse effects of taxation could be neutralized by some favourable effects of public expenditure, the indirect burden of public debt can be cancelled out. In practice, however, this may not be possible.

- In the case of external debt, indirect money and real burden arise from checks to production because of additional taxation (to pay for debt charges) and to possible economies which government may effect in desirable social expenditure.

CHAPTER EIGHT
PRINCIPLES OF FEDERAL FINANCE

➢**Principles of allocation of resources between Federal and State governments**

In a federal set up, the federal-State financial relations are based on the principle of federal finance.

Where the term federal comes from? It comes from the term federation which collectively explains the union of two or more states.

However the term federation is defined differently by different scholars.These :

- Federation defined as a "form of political association in which two or more states constitute a political unity with a common government, but in which these member states retain a measure of internal autonomy."
- According to the Encyclopedia Britannica; "federation is a form of government in which there is union of two or more states under the central body for certain permanent objectives."
- Sir Robert Farn defined, "a federation as a form of government in which sovereignty of political powers is divided between the central and local governments, so that each of them within its own sphere is independent of the other."

- Thus, from the above definitions one can understood
- ✓ in a federation, there is constitutional division on powers, functions and resource between the federal and the state governments.
- ✓ The two sets of governments are independent so far as their own functions and resources are concerned.
- ✓ The two sets of governments works directly or indirectly for common goals.

8.2. PRINCIPLES OF FEDERAL FINANCE

- Prof. B.P .Adakar, lays down three principles which should govern the working of federal finance, system. These principles are:

1. **Independence and responsibility**

Freedom of financial operations must be extended to both federal as well as state governments in order that they may not suffer from a feeling of cramp in the discharge of their normal activities and in the achievement of their legitimate aspirations for the promotion of social and economic advancement."

It means that central and state governments must each have its own independent central financial resources sufficient to carry out its exclusive functions.

- Besides, each government should take the responsibilities of taxing, borrowing, and raising resources in their spheres for performing their functions.
- The authority which has a pleasing job of spending money should also do the unpleasant job of raising it. Thus, "taxing autonomy and spending autonomy should go hand in hand."
- Some advocates have a view which intends that taxing autonomy should lie with federal government while spending autonomy with the states. why?

i. If every level of government there would be great disparity in quality and quantity of public expenditure from state to state.

- ✓ State with wealthier population and richer tax resources will be able to fulfill their social obligation much better than the poor ones."

ii. Centralization of revenues in the hands of the federal governments appears to be very sound in the case of under developed countries on the ground of economy and efficiency and balanced economic growth.

- However, from practical point of view if too much dependence of State government on central government for finance is accepted then the former may be reduced to the status of spending agencies of the federal government and hence states feels as dependent partners in their progress.
- It is, therefore, concluded that central government and state governments both should be autonomous in the sphere of raising resources and performing their functions effectively, but periodical adjustment in these aspects is necessary for the successful working of both governments.

2. Adequacy and elasticity

- The principles of adequacy means that the resources of central and the state governments should be adequate so that each layer of government can discharge its obligations laid upon it.
- It stands for sufficiency of resources for the discharge its functions duties and obligations laid upon it.
- Thus, Sir Johan Latham, former Chief Justice of Australian High Court said "If a federal system with real independence in the state is to continue, the state must have financial resources under their own control reasonably adequate to meet their responsibilities."

- Besides to adequacy, there should be elasticity in the financial resources.
- It means that resources should be capable of expansion in response to rapidly growing needs and responsibilities of the government concerned.
- Otherwise, the federal finance scheme will become an obstacle in time s of economic and defense crisis.

3. Administrative economy and efficiency

For the success of central-state financial relations, it is very much required that the administrative cost should be minimum and there should be no frauds and evasion in matter of finances. corruption and inter-regional smuggling are to be avoided and the resources of revenue are to be fully exploited.

- Some other principles: Besides these principles, some scholars added different principles on the subject of central-state financial relations. These are:
- **4. Principle of equity**

Different state of a federation may have disparity in the level of assignment and allocation of functions to bring economic development not only in wealth and taxable resources. Therefore, according to this principle, the burden of taxation will be unequally distributed as the marginal sacrifice will be different in different states.

- However; the principle of equity states as a need may arise to adjust the federal and states taxes in such a way that the marginal sacrifice of the federal and state taxation taken together is equal or nearly equal to every person, no matter in which state he resides.
- Therefore, there should be proper adjustment between federal and state taxation so as to make the tax burden on all citizens equitable as far as possible.

5. Principle of integration and coordination:

The whole financial system of federation should be well integrated and each layer of financial system of federation should not be taken as completely isolated from the other layers of financial system.

This should be done in a way that promotes working of federal financial system.

6. Principles of accountability

In federal system such government should be accountable to its own legislative for its having and spending decisions and should make these decisions with due regard for their effect on other government.

7. Principle of uniformity

The financial system in a federation should be such as to enable each regional government to provide an adequate level of public service without resort to higher rates of taxation substantially than those of other regions.

8. Principle of fiscal access

This canon implies that the resources should grow with the increase in functions and responsibilities. The state governments should have access to develop new sources of revenue to meet their financial needs. There should be no bar on central and state governments in developing new sources of revenue within their own prescribed fields to meet the growing financial needs.

8.3. PROBLEMS OF FEDERAL FINANCE

1. In a federation two constitutionally independent fiscal systems operate upon the fiscal resources of the individual citizens. There is multiplicity of taxing and spending authorities in a federation. Thus, the federal finance faces the problem of "financial arrangement between the federal government and states.

- Thus, the functions and duties of the state are divided between the central government and several state governments and they are generally defined in the constitution.

For example; the functions which are of national importance have generally been assigned to the central government and those which are of local or regional importance have been assigned to the state governments.

- It should, however, be kept in mind that these functions cannot be strictly separated in present times.
- There is no function in which both central and state governments are not interested. For instance, the central government is equally interested in the developmental functions like education, public health, etc.
- Similarly,state governments cannot ignore defense, communication, etc.
- Thus, there should be a close coordination between the policies of central government and state governments.

- In any case, the interests of central government should not come in conflict with state governments.

2. Allocation of functions and duties may create problem in the allocation of resources between central and state governments corresponding to their requirements.

Therefore, "the fundamental problem of federal finance is that ensuring that the division of revenue between central and regional governments corresponds with the distribution of function in order that each government may have the functional capacity to carry out its responsibilities as far as possible."

Problem of Imbalance in Financial Resources

The problem of imbalance in the allocation of financial resources and functions between center and all state governments generally arise because almost all important and elastic sources of revenue like customs, income tax, corporation tax, etc., are allocated to the federal government on the consideration of administrative efficiency.

On the consideration of autonomy, state governments are assigned expenditures on social and developmental items. Thus, in practical life, it has been found that federal revenue grow more quickly than state revenues and state expenditures grow more quickly than the federal,

- In other words resources have increased in the account of federal government, need for spending has increased in the account of regional government. As a result, the federal government has the resources and the state have responsibilities. Hence there is imbalance in the federal financial system.
- This imbalance has led to a general strain. This is because “the question of financial imbalances is made worse by the fact of inter-regional inequalities in economic development and fiscal capacity.”
- Thefore; this imbalances should be removed.

How to Remove Imbalances?

- The financial imbalance between federal and state governments may be corrected either by transferring some functions from states to central government or by transferring some resources from federal governments to state governments. However, no developing society can afford a rigid division of powers and functions.
- The problem of imbalance between federal and state governments can be solved by allocation of taxes between federal and state governments. But, this is opposed on ground of uniformity of rates and administrative efficiency.

- This imbalance of financial resources between the central and state governments can be solved by transferring funds from the center to state governments. Thus, by transfer of funds from the federal to states government, the financial balance is achieved.
- Therefore, inter-governmental financial transfer constitutes an integral part of the system of federal finance in maintaining financial equilibrium.

8.4. FORMS OF INTER-GOVERNMENTAL FINANCIAL TRANSFER

1. Distributive Pool Method, or Distribution of Tax Proceeds, or Tax Sharing:

- According to this method, pre-determined proportions of the proceeds of certain central taxes are combined into a single pool, and the contents of this pool are then allocated percent wise to different states on a pre-determined basis.
- Three questions are involved in putting this method into practice.

- which taxes should be shared?,
- what proportion of these taxes should be assigned to the regional government, and
- how the share of each state should be determined.
- All this issues should be mentioned in the constitution.
- For example; In India and certain African Federations a commission, set up in terms of the constitution, decides the share of taxes to be assigned to the states.
- In Canada, it is a matter of five-yearly agreements between federal and provincial governments.