Indirect Taxes

RIDLEY COLLEGE
SINCE 1889

Assessment Objectives

Specific Expectations	
AO2	Explain the consequences of indirect taxes on markets and stakeholders
AO4	Draw diagrams to illustrate the effects of indirect taxes on markets and stakeholders.
AO3	Evaluate the effects of indirect taxes on markets and stakeholders.
AO4	Calculate the effects of indirect taxes on markets and stakeholders.

Indirect Taxes

- **Indirect taxes** are taxes levied on spending to buy goods and services.
  - Whereas payment of some or all of the tax by the consumer is involved, they are paid to the government authorities by the suppliers (firms).
  - There are two types of indirect taxes:
    1. **Excise taxes** – are imposed on particular goods and services such as petrol (gasoline), cigarettes and alcohol.

       Pigouvian tax – is a tax on a market transaction that creates a negative externality, or an additional cost, borne by individuals not directly involved in the transaction.
    2. **Taxes on spending** – placed on all or most goods or services such as valued added taxes or general sales taxes.
  - Indirect may be percentage-based on a specific amount per unit

Indirect Taxes

1. **Specific tax** – is a fixed amount of tax placed on a particular good. It is proportional to the particular quantity of a product sold, regardless of its price.
2. **Ad valorem tax** – defined in terms of a fixed percentage of the price of a good or service. The supply curve shifts up proportionately at each price, and the amount of tax increases as the price of the good or service increases.

- Governments impose excise taxes for several reasons:

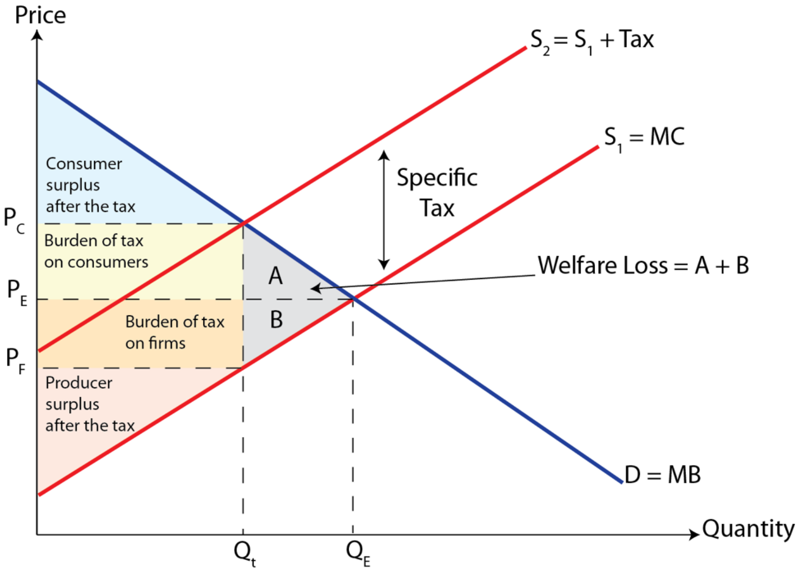
1. **Source of government revenue** – governments collect revenue from indirect taxes. The lower the price elasticity of demand, the greater the government revenue generated.
2. **Discourage consumption of demerit goods** – the consumption of certain goods is considered harmful to the individual. Taxing these goods is likely to reduce their consumption and improve the allocation of resources.

Indirect Tax

3. **Redistribute income** – some taxes focus on luxury goods. The objective is to tax goods that can only be afforded by high-income earners. Payment of a tax on the purchase of these goods reduces after-tax income, thus narrowing differences with the incomes of lower-income earners.

- When a tax is imposed on a good or service, it is paid to the government by the firm.
  - For every level of output the firm is willing and able to supply to the market, it must receive a rice that is higher than the original price by the amount of the tax.
  - This involves a shift of the supply curve upward by the amount of tax.

Indirect Tax



Indirect Tax – Market Outcomes

- The market outcomes due to the indirect tax are the following:
  - Equilibrium quantity produced and consumed falls from Q_E to Q_T
  - Equilibrium price increases from P_E to P_C, which is the price paid by consumers
  - Consumer expenditure on the good is given by the price of the good per unit times the quantity of units bought, it is therefore changes from $P_E \times Q_E$ to $P_C \times Q_T$
  - Price received by the firm falls from P_C to P_F, which is $P_F = P_C - \text{Tax per unit}$
  - The firm's revenue falls from $P_E \times Q_E$ to $P_F \times Q_T$
  - The government receives tax revenue, given by $(P_C - P_F) \times Q_T$, or the of tax per unit times the number of units sold.
  - There is underallocation of resources to the production of the good, Q_T is less than the free market quantity Q_E.

Indirect Tax – Market Outcomes

- Note that when identifying producer surplus after the imposition of an indirect tax, we always refer to the initial supply curve.
    - The imposition of an indirect tax result in reduced consumer and producer surplus, part of which is transformed into government revenue, and part of which is a welfare loss.
    - The welfare loss in this case is the result of underallocation of resources to the production of the good (underproduction).
    - This is also indicated by MB $>$ MC: too little of the good is produced and consumed relative to the social optimum.

Indirect Tax – Summary

- The effects of imposing an excise tax on a particular good can be summarized by the following three effects,

  1. **Incidence of the tax** – the stakeholder with the lower elasticity has a higher tax incidence.
     - The more inelastic the demand and the more elastic supply the higher incidence of a tax on consumers.
     - The more elastic the demand and the more inelastic the supply the higher the incidence of a tax on producers.
  2. **Government revenue** – will be greater the lower the elasticity of demand and the lower the elasticity of supply.
  3. **Resource allocation** – will be most changed the higher the elasticity of demand and the higher the elasticity of supply.