

The background of the slide features a photograph of three young people, likely students, wearing purple hoodies. The hoodies have the word "CEVRES" in large, stylized white letters, with "UNIVERSITY" written in smaller letters below it. The person in the center is a young woman with long, wavy brown hair, looking off to the side. To her left, the back of another person's head and shoulders are visible. To her right, the side profile of a young man is partially visible. The background is slightly blurred, showing hints of an outdoor setting with trees and a building.

# ELEMENTS AND PRINCIPLES OF TAXATION AND GOVERNMENT REVENUE

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# LECTURE OVERVIEW

- **Elements and principles of taxation**
- **Overview of government revenue**

# TAXATION

- Effectiveness of government depends on how well it can provide public goods that will meet the demand of citizens; thus, it must be able to collect necessary revenue, in particular tax revenue
- Tax = mandatory financial charge or levy imposed on an individual or legal entity by a governmental organization to support government spending and public expenditures collectively or to regulate and reduce negative externalities
- Old saying: „*Two things are certain in life: death and taxes*“
- Government needs to use its legal power and at times its coercive authority
- Tax is not a choice but rather an involuntary payment to government by a taxpayer for which there may not be a *quid pro quo* return or benefit (= taxpayer may not receive a good or service that is equal in value of the tax contribution)
- Conventional wisdom is far from being a cliché: if a government can find a way to tax, it will
- Central issue: in not how much revenue a tax system generates but who ultimately bears tax burden
- Tax incidence (tax burden): the effect of a particular tax on the distribution of economic welfare
- Tax compliance: policy actions and individual behaviour aimed at ensuring that taxpayers are paying the right amount of tax at the right time and securing the correct tax allowances and tax relief

# DESIRABLE CHARACTERISTICS OF A TAX SYSTEM

- All tax decisions have a direct bearing on the economic wellbeing of taxpayers as well as society at large
- Already Adam Smith (1776) recognised 4 cannons of taxation that serve to this day
- Below, we will discuss in more detail 5 „desirable characteristics“:
  1. Efficiency
  2. Equity
  3. Flexibility
  4. Simplicity
  5. Feasibility
  6. Stability
  7. Transparency
  8. Security

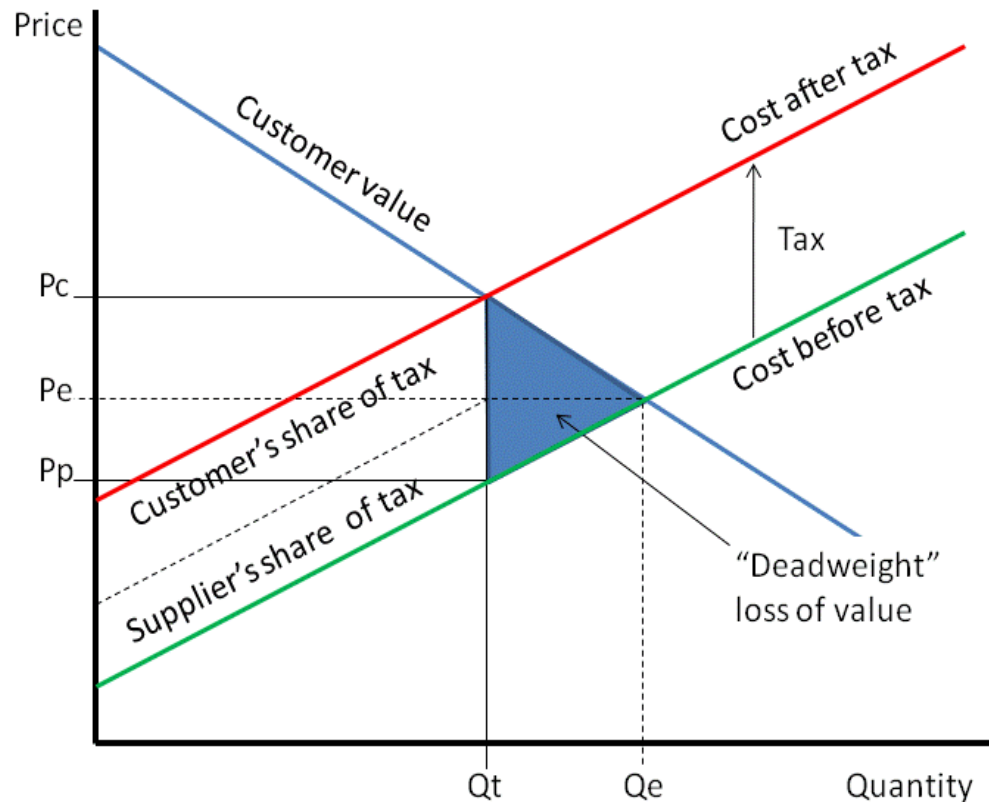


Adam Smith (1723 – 1790), „*Wealth of Nations*“, 1776, pioneer in field of political economy

# 1. EFFICIENCY

- Tax system is efficient when it does not distort or affect as little as possible the working of free-market system yet produce maximum revenue for a government without producing an excess burden for taxpayers called deadweight loss
- If tax system is inefficient it will produce an welfare loss not only to the individual tax payer but also to society at large
- Welfare loss occurs when the tax policy of government causes a consumer vis-a-vis a taxpayer to change his behaviour by consuming less than what is socially desirable and a firm produces less to avoid the tax burden
- Efficiency-loss ratio (ELR) =  $\text{Excess Burden} / \text{Tax Revenue}$   
Example:  $\text{ELR} = 0,25 \Rightarrow$  for each \$ of tax revenue an excess burden will be 25 cents
- Estimation the efficiency-loss ratios from various tax measures can produce useful information for government to help achieve that tax decisions do not create excess burden or produce excess burden as little as possible without lowering the tax revenue

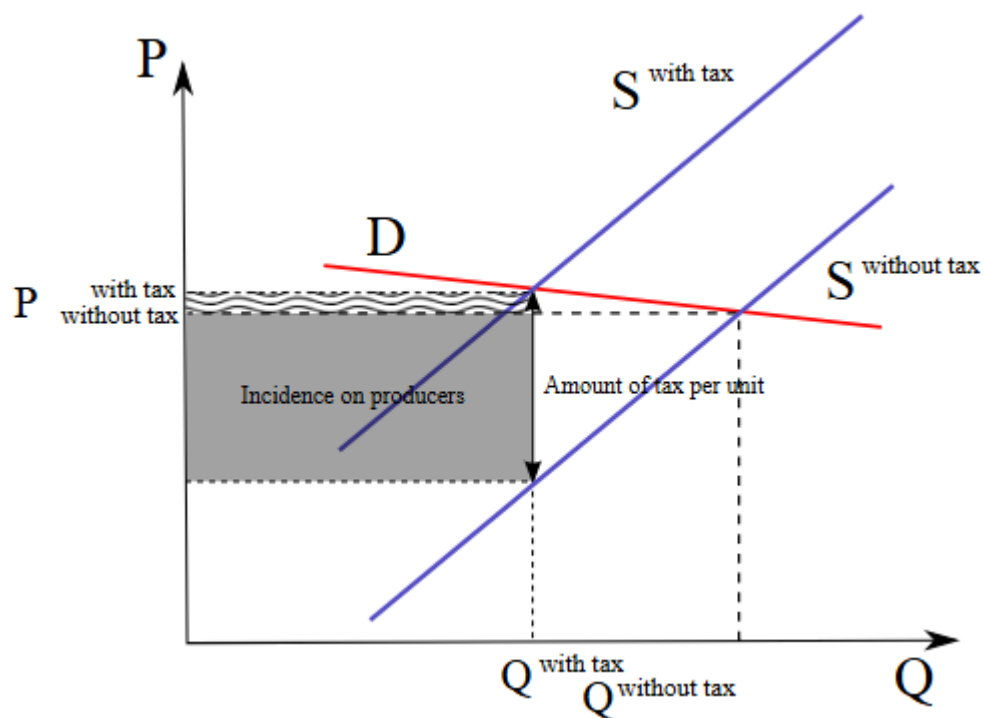
# DEADWEIGHT LOSS OF TAX



- Introduction of taxes into a market reduces economic efficiency by causing deadweight loss
- Introduction of a tax causes the price received by the seller to be less than the cost to the buyer by the amount of the tax
- This causes fewer transactions to occur, which reduces economic welfare; the individuals or businesses involved are less well off than before the tax
- Tax burden and the amount of deadweight cost is dependent on the elasticity of supply and demand for the good taxed

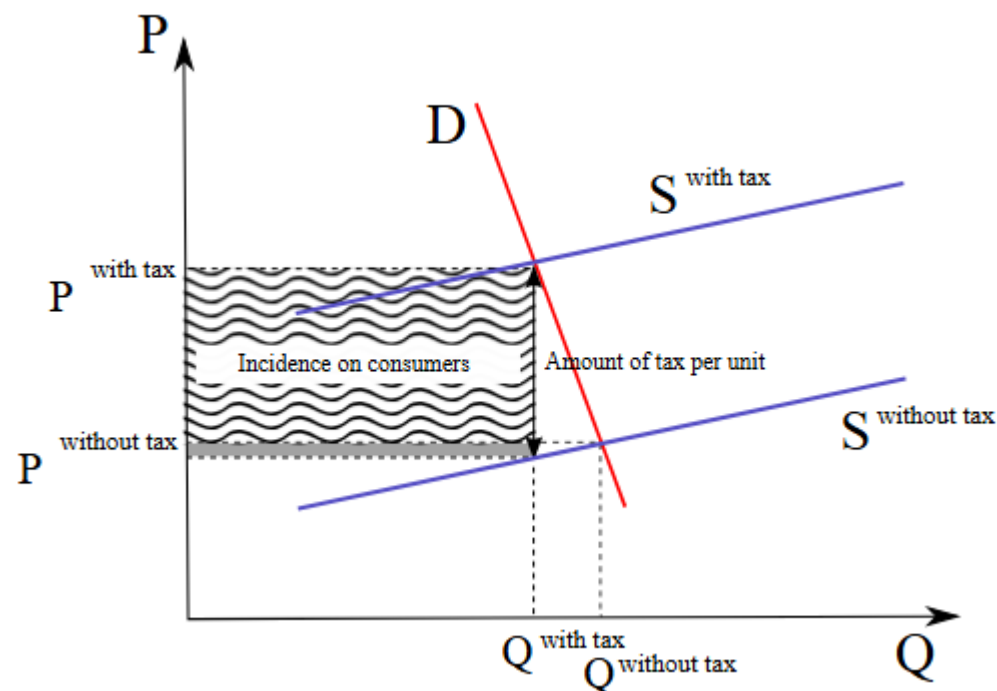
# EFFECTS OF RELATIVE ELASTICITY ON TAX INCIDENCE

Inelastic supply and elastic demand ...



... burden is on producers

Elastic supply and inelastic demand ...



... burden is on consumers

Example: if a 10% tax is imposed on sellers of butter, but the market price rises 8% as a result, most of the tax burden is on buyers, not sellers

# EFFETS OF TAX DECISIONS

Effects a tax decisions produces are often complex and numerous

A) **Behavioral effects** – taxes directly affect an individual's ability to consume, save and invest (the more an individual pays in taxes the less will be the portion of his after-tax income that will be available for consumption, saving and investment)

B) **Financial effects** – e.g. it makes very little difference whether an employer contributes to an employee's retirement plan or pays an equivalent amount directly to the employee (as employer is concerned); but it makes a real difference on the employee's overall income situation (if it goes directly to employee, then it will add to his aggregate income increasing his overall tax liability)

C) **Organisational effects** – how business organisations make financial decisions that involve risk; decisions depend on tax structure  $\Rightarrow$  higher tax burden discourage firms from taking risks

D) **Distortionary versus non-distortionary effects** – if an individual can do nothing to alter his tax liability it is a non-distortionary tax = lump-sum tax (e.g. head tax or poll tax); if an individual can alter his tax liability in some way, it is a distortionary tax

E) **Partial versus general equilibrium effects** – if tax decision affects only one market or more markets which are interdependent; tax decisions have effects on all other sectors of economy

## 2. EQUITY

Also called fairness is concerned with relative distribution of resources among individuals and groups according to some established notions of fairness and justice

- A) Horizontal equity – tax system is considered horizontally equitable if it treats individuals with equal income equally (if two individuals with identical incomes pay same amount of taxes)

Horizontal equity is not a serious issue because it does not deal with real distributional concerns of society

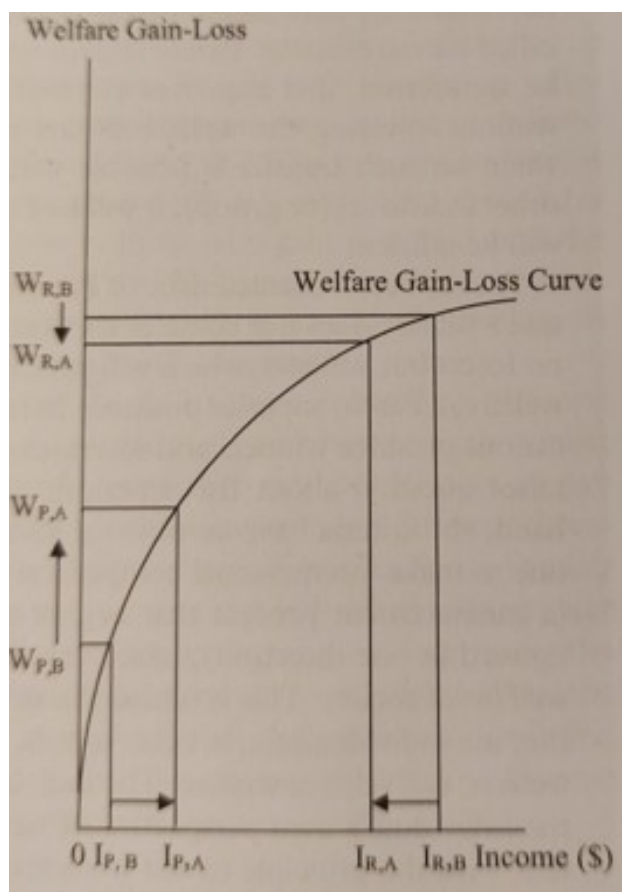
- B) Vertical equity – tax system is considered vertically equitable if it treats individuals with unequal incomes differently

Dealing with vertical equity is much more complex because it requires the use of some scales by which to measure the wellbeing of individuals with different incomes

Two constructs are typically used: ability to pay principle and the benefit principle

# ABILITY TO PAY PRINCIPLE

According to this principle taxes should be levied in accordance with the tax-payer's ability to pay and often serves as the basic criterion of fairness in taxation – those who have greater ability should pay more than those who do not (a real issue: by how much more?)



- Consider a society with a rich man and a poor man
- Rich man decides or is asked to sacrifice a small fraction of his income through tax transfer for the welfare of poor man
- Little sacrifice by rich man will have far greater effect on poor man than on the rich
- Marginal utility of a dollar to a rich man is much lower than the marginal utility to a poor man
- Since the welfare gain of the poor man from a marginal dollar is considerably higher than the welfare loss of the rich man, in the aggregate both will be better off by the income transfer  $\Rightarrow$  will increase aggregate welfare of society

**HOWEVER, MANY QUESTIONS AND OPEN ISSUES!**

# BENEFIT PRINCIPLE

- Usually, individuals do not receive the same amount of benefits they receive for their taxes
- Therefore it is unfair to use income as the sole basis for taxation
- According to benefit principle individuals should pay in proportion to the benefits they receive from the consumption of a good and not on their ability to pay
- Problems:
  - a) it is not always possible to assign precise value of to the benefits which individuals receive (especially if the good is intangible such as education and health care)
  - b) for public goods where there is free-rider problem it is difficult to determine exact quantity individuals will consume  
Benefit principle makes perfect sense for goods that are provided in business-like manner (such as water, sewer, electricity, toll roads, etc.)
  - c) it is unfair if not difficult (especially on moral ground) to ask individuals at the lower rung of income strata to pay full value (price) of the benefit they receive
  - d) by itself, the benefit principle may not be sufficient to generate needed revenue

**Both principles (ability to pay and benefit principle) are necessary to provide „enough“ resources**

# EFFICIENCY-EQUITY TRADEOFF

Equitable tax system – easy in theory, difficult in reality:

1. Decision makers need to have full information on individual preferences for goods and quantities they want to consume
2. Individuals are unlikely to reveal voluntarily that information to reduce their tax burden
3. When government imposes a tax (in particular progressive tax) to improve vertical equity it will invariably impinge on their ability to consume, save and invest, causing the deadweight loss not only to individual but also to society at large (inefficiency)

Tradeoff between progressive taxation (that would ensure vertical equity) and deadweight loss to society (that would result from the excess burden of taxation)

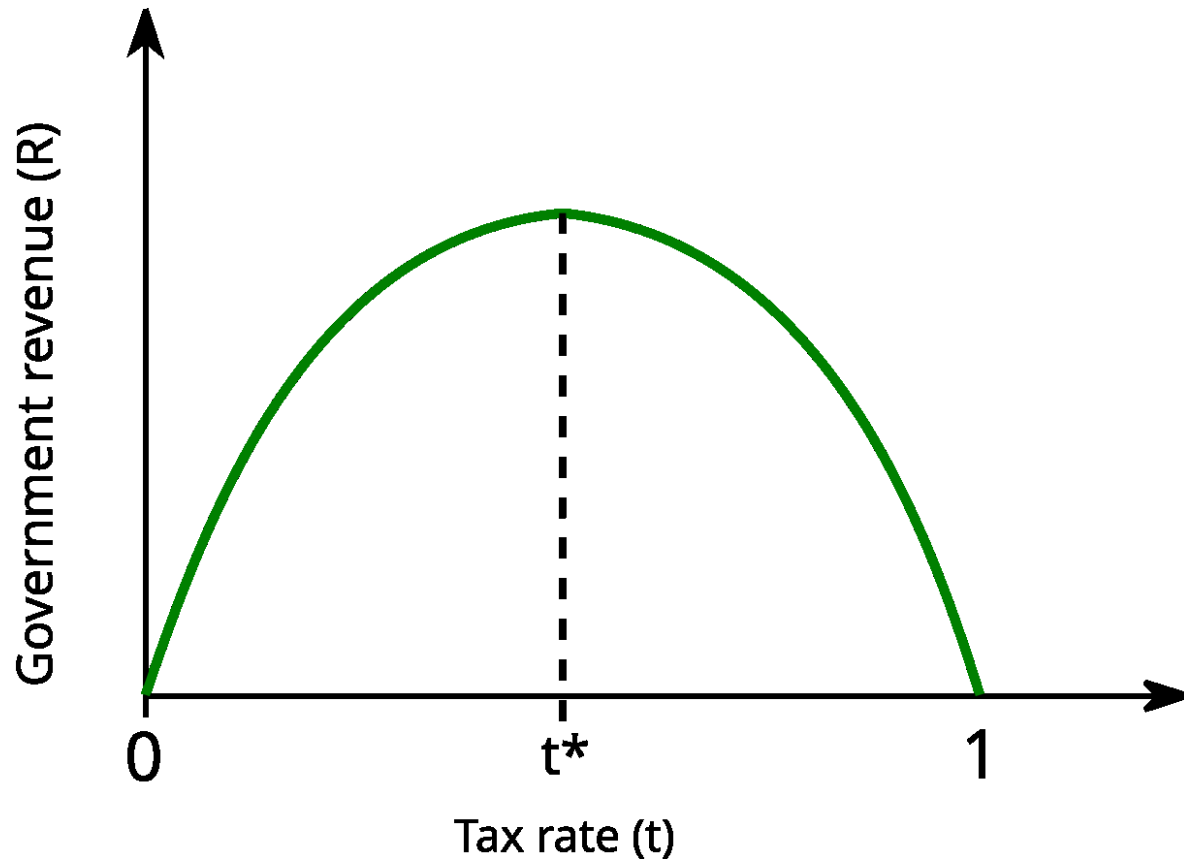
**Ramsey rule** – taxes should be placed in inverse proportion to the elasticity of demand for goods: the more inelastic the demand for good, the higher should be the tax on the good (this may partly explain why taxes are high on goods such as alcohol and tobacco: inelastic demand and)

Summary: to distribute the liability among multiple income groups and sources as much as possible to minimise the excess burden although it may increase the cost of administration

# 3. FLEXIBILITY

- Flexibility in taxation allows governments to adapt to changing economic conditions and societal needs
- A rigid tax system may struggle to respond to economic fluctuations, demographic changes, or unexpected events
- 3 measures:
  1. Expansion of existing tax base  
Example: property tax – expansion of full value of taxable property
  2. Increase in tax rates  
either raising of tax rate on existing source or introducing the tax on source which was not previously taxed
  3. Finding a new source of revenue  
Nontax revenues can provide an effective tool for raising higher revenue without creating excess burden for taxpayers (user fees, fines, licenses and permits, etc.)

# LAFFER CURVE

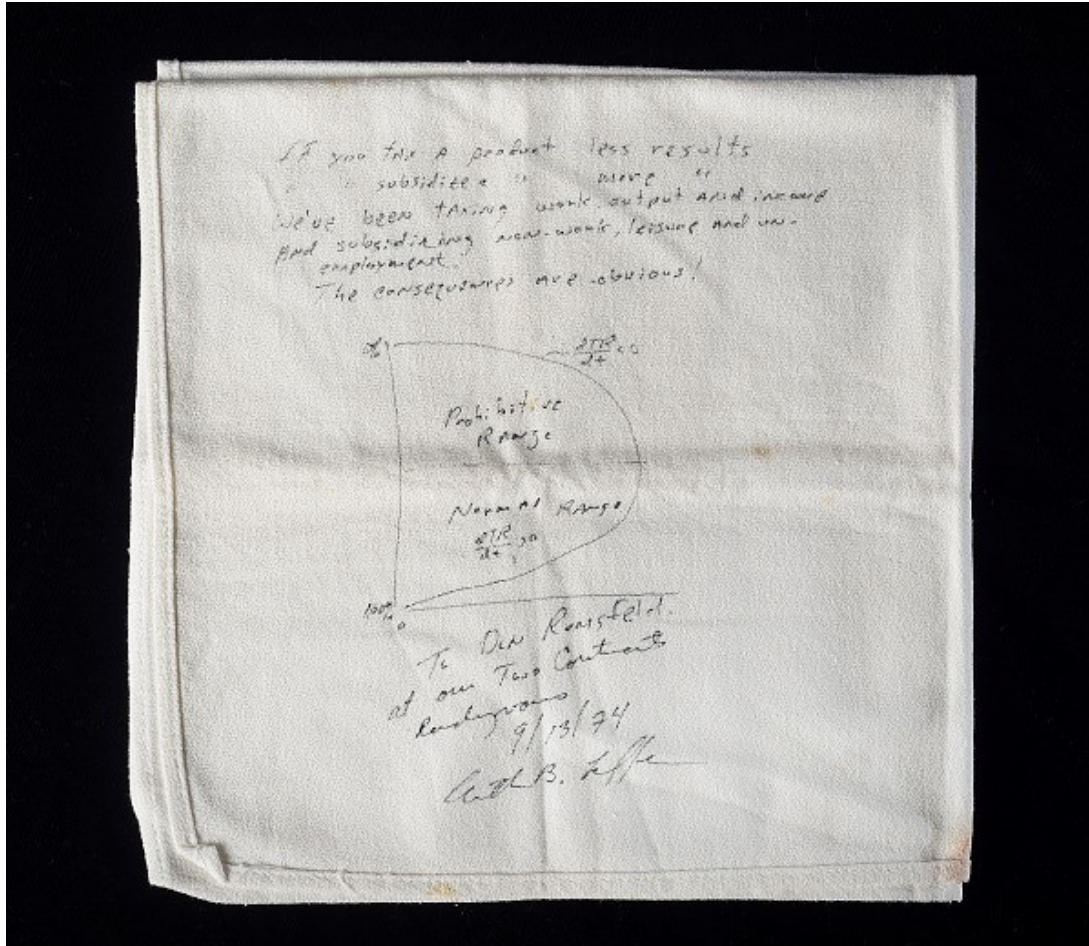


- Laffer curve illustrates a theoretical relationship between rates of taxation and the resulting levels of the government's tax revenue
- It assumes that no tax revenue is raised at the extreme tax rates of 0% and 100%, meaning that there is a tax rate between 0% and 100% that maximizes government tax revenue
- Implication: increasing tax rates beyond a certain point is counter-productive for raising further tax revenue
- In United States, conservatives have used the Laffer curve to argue that lower taxes may increase tax revenue
- However, the hypothetical maximum revenue point of the Laffer curve for any given market cannot be observed directly and can only be estimated



*Arthur Laffer (1940 - ) American economist; member of Reagan's Economic Policy Advisory Board*

# LAFFER CURVE NAPKIN



- In 1974 economist Art Laffer sketched a new direction for the Republican Party on this napkin
- Displeased with President Gerald Ford's decision to raise taxes to control inflation, four men got together at a Washington, DC restaurant to think about alternatives
- Laffer was joined by journalist Jude Wanniski and politicians Dick Cheney and Don Rumsfeld. Laffer argued that lowering taxes would increase economic activity; Wanniski popularized the theory, and politicians Don Rumsfeld and Dick Cheney carried it out
- The cloth napkin was taken as a souvenir by Jude Wanniski
- The napkin reads "If you tax a product less results/If you subsidize a product more results./We've been taxing work, output and income and subsidizing non-work, leisure and un-/employment./The consequences are obvious!" with an image of the Laffer curve in the middle
- The bottom of the napkin reads To Don Rumsfeld/at our Two Continents/Rendezvous/ 9/13/74/Art B. Laffer

## 4. SIMPLICITY

- Simplicity is very important principle
- Tax system should be easy to understand
- Complexity in tax laws can lead to confusion, errors, and increased compliance costs for taxpayers and administrative costs for the government
- When tax laws are straightforward, it becomes easier for individuals and businesses to fulfil their tax obligations
- Simple tax system also reduces the need for extensive tax advice and decreases disputes with tax authorities
- Complexity often has an economic costs that increase overtime
- US tax system:
  - is extremely complex; it consists of a myriad of laws and regulations built over time that is not easy grasp by an average taxpayer
  - Tax reform in 1986 – robust simplification: extension of tax base, reduction of marginal tax rates, elimination of numerous exceptions and loopholes

## 5. FEASIBILITY

- In a democratic system public support is necessary for a government to pass legislation on major tax decisions
- If a government wants to introduce a new tax it has to have the approval of the voting public
- Role of public referendum on taxes:
  - It gives the public an opportunity to carefully evaluate the proposed policy before voting on it
  - It allows the decision makers to recognise the choices made by the public and to ensure that the policy reflects those choices

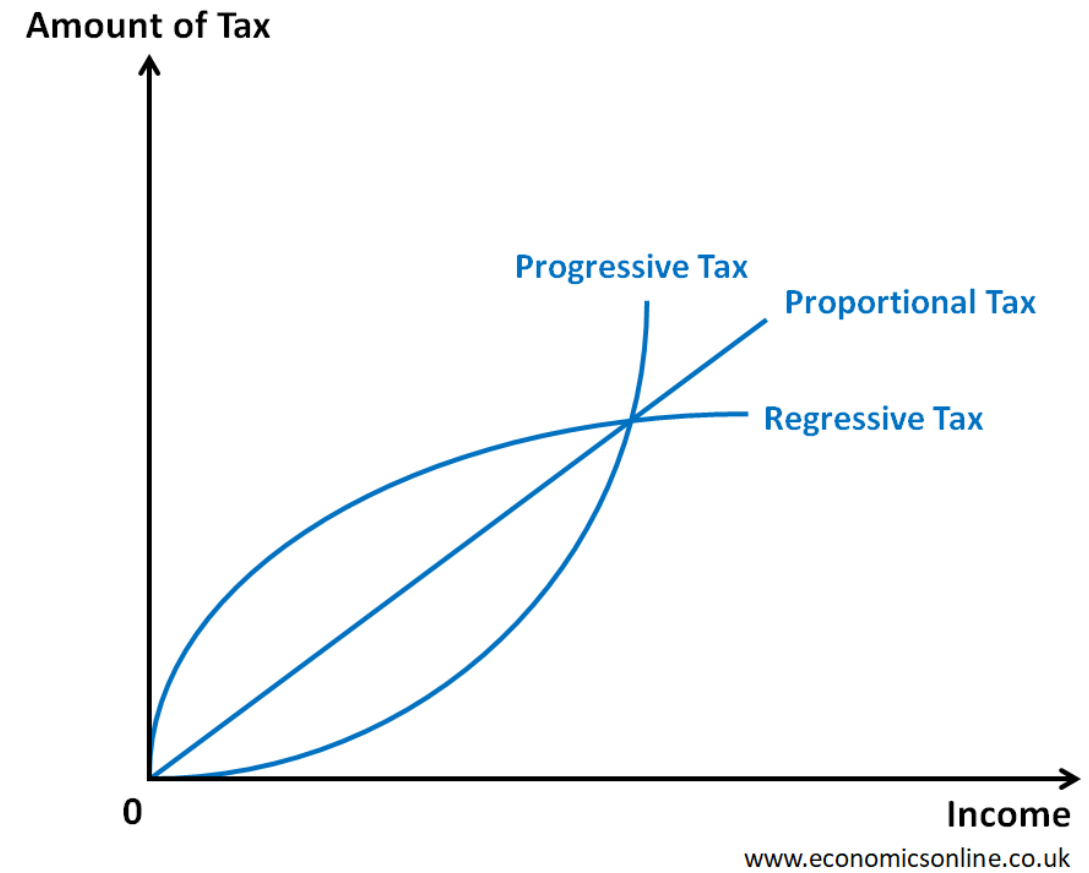
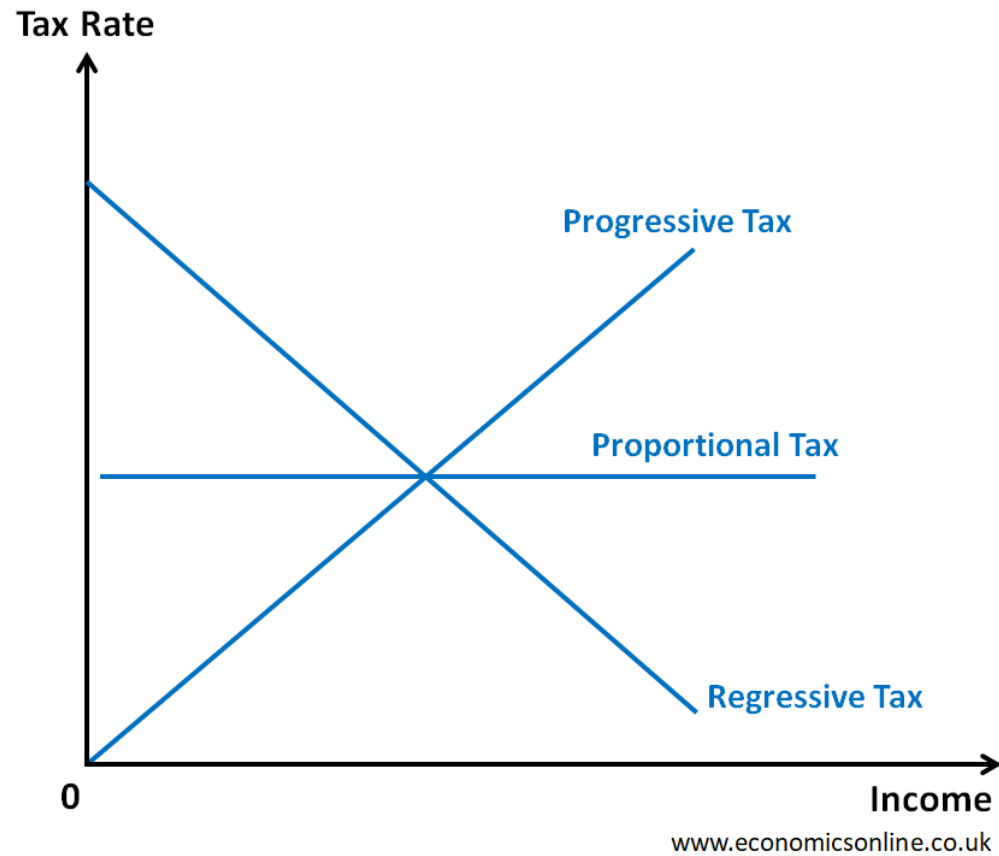
## OTHER CRITERIA OF THE TAX SYSTEM

6. Stability – stable sources of government revenue

7. Transparency – taxpayers should understand what they pay

8. Security – taxpayer must be protected from unlawful disclosures

# TAX RATE PROGRESSION



# TAX RATE PROGRESSION: NUMERICAL EXAMPLE

| REGRESSIVE TAX |           |                                  |               |
|----------------|-----------|----------------------------------|---------------|
|                | Income    | Percentage of Income Paid in Tax | Amount of Tax |
| Family A       | \$10,000  | 20%                              | \$2,000       |
| Family B       | \$50,000  | 4%                               | \$2,000       |
| Family C       | \$100,000 | 2%                               | \$2,000       |

| PROGRESSIVE TAX |           |                                  |               |
|-----------------|-----------|----------------------------------|---------------|
|                 | Income    | Percentage of Income Paid in Tax | Amount of Tax |
| Family A        | \$10,000  | 10%                              | \$1,000       |
| Family B        | \$50,000  | 20%                              | \$10,000      |
| Family C        | \$100,000 | 30%                              | \$30,000      |

| PROPORTIONAL TAX |           |                                  |               |
|------------------|-----------|----------------------------------|---------------|
|                  | Income    | Percentage of Income Paid in Tax | Amount of Tax |
| Family A         | \$10,000  | 20%                              | \$2,000       |
| Family B         | \$50,000  | 20%                              | \$10,000      |
| Family C         | \$100,000 | 20%                              | \$20,000      |

# OVERVIEW OF GOVERNMENT REVENUES

# TYPES OF REVENUES - 1

- **Taxes on income, profits and capital gains**

- Income tax
  - Personal income – tax levied on the wages, salaries, investments, or other forms of income an individual or household earns
  - Corporate income tax – tax levied on the income or capital of corporations and other similar legal entities
  - (Negative income tax – is a progressive income tax system where people earning below a certain amount receive supplemental payment from the government instead of paying taxes to the government)
- Payroll tax – mandatory payments calculated on employee salaries and wages, paid by either employers, employees, or both, to fund government programs such as Social Security and Medicare
- Social security contributions – payments made by both employees and employers, or by self-employed individuals, to fund social welfare programs like pensions, sickness benefits, and healthcare
- Capital gains – capital gain is generally a gain on sale of capital assets—that is, those assets not held for sale in the ordinary course of business (antiquities, shares, precious metals, second homes, etc.)

- **Taxes on goods and services**

- Value added tax (VAT) - equivalent of a sales tax to every operation that creates value
- Sales tax - are levied when a commodity is sold to its final consumer
- Excise taxes - an indirect tax imposed upon goods during the process of their manufacture, production or distribution
- Tariffs - is a charge for the movement of goods through a political border

# TYPES OF REVENUES - 2

- **Taxes on property and wealth**

- Property tax – ad valorem tax levy on the value of a property that the owner of the property is required to pay to a government in which the property is situated
- Land value tax – levy on the value of land without regard to buildings
- Inheritance tax – taxes that arise for inheritance or inherited income
- Expatriation tax – tax on individuals who renounce their citizenship or residence
- Remittance tax – an excise tax levied on international money transfers, typically paid by a sender to a recipient in a foreign country

- **Other sources of revenue**

- Licence fees - payment made for permission to use a right, such as operating a business or accessing a service
- User fees and charges – (highway tolls)
- Poll tax - per capita tax, or capitation tax, is a tax that levies a set amount per individual
- Intergovernmental revenue – from higher to lower level of government
- Franchise tax – a privilege tax because of the rights given to them to operate in the state
- Lottery revenue -

# TAXES AND LAW

- Tax **avoidance** is a legal practice where taxpayers use provisions in the tax code, such as deductions and credits, to minimize their tax bills
- Tax **evasion** is illegal and involves underreporting income or falsifying information to reduce tax liabilities
- Tax avoidance: example  
Most popular scheme - operated by companies where directors receive their income as directors' loans and then either do not repay such loans to the company or write them off at the year-end
- Tax evasion: under-reporting business income to ministry of treasury

# THANK YOU FOR YOUR ATTENTION

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