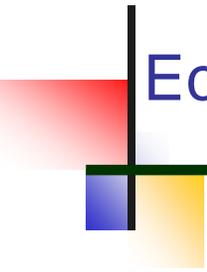


Economics and Public Finance

Lecture 7

Public Revenues: Theory and Practice – PART 1



Economics and Public Finance – This session outline

Chapter 3: Public revenues: theory and practice

3.1. Major sources of public revenues

3.1.1. Types of public revenue

3.1.2. Desirable characteristics of a tax system

3.2. Taxation and efficiency

3.2.1 Taxes and inefficiency: the excess burden of taxation (introduction)

Economics and Public Finance – Readings

- Readings English:
- Stiglitz, J. Rosengard (2015). *Economics of the Public Sector*, 4th ed. W. Norton Company, Inc. **chapter 17** Introduction to taxation, p 511-526
THE FIVE DESIRABLE CHARACTERISTICS OF ANY TAX SYSTEM

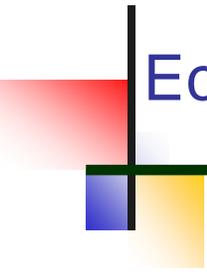
(including the deadweight loss of taxation)

Note: Stiglitz considers just 5, we consider 6 (one more).

Summary Book Chapter 7 (translation) of Pereira and Nunes **Economia e Finanças Publicas: da teoria à pratica. Almedina**

Readings Portuguese:

- Chapter 7 of Pereira et al. **Economia e Finanças Publicas (6^a edição, p. 221-229. or 5^a edição, p. 213-220)** and Chapter 7 of Pereira and Nunes **Economia e Finanças Publicas: da teoria à pratica. Almedina**



Economics and Public Finance – Core topics

- The different types of public revenues taxes versus fees and charges).
- The definition of tax and tax system.
- The characteristics of a "good", desirable tax system: (see slide n° 10)
- The excessive burden of taxation (inefficiency).

Economics and Public Finance – Types of public revenues (1/2)

1. Distinction regarding the economic nature of public revenues

- Current
- Capital

2. Distinction regarding the degree of effectiveness of public revenues

- Effective
- Non-effective (borrowing)

3. Distinction regarding the types of (actual) public revenue

- Tax revenues
- Social contributions
- Property revenues
- Fees and licences
- Fines and penalties

- **Definition**

- **Taxes:**

- "A final payment of binding nature to the state, [...] and without an immediate and direct return to the taxpayer."

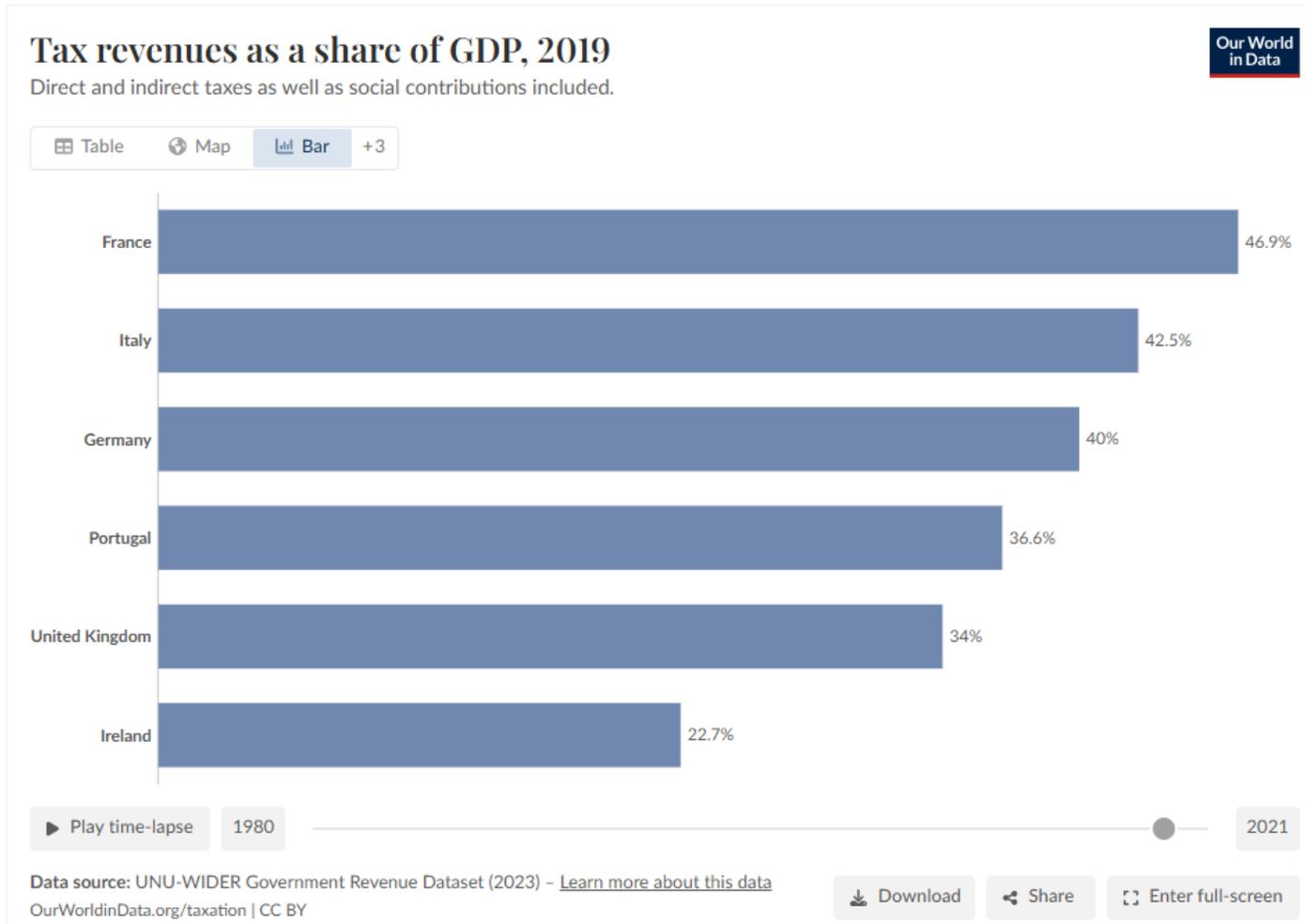
- **Tax system:**

- "All taxes prevailing in a particular country or geographical area."

Fees, Tariffs and User Charges,

There is a correspondence between payment and service received.

Economics and Public Finance – The importance of tax revenues



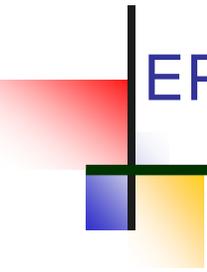
Economics and Public Finance – The importance of tax revenues

- **In financial terms**

- **Taxes and social contributions** are the most important type of public revenues needed to cover all public sector expenditures, *i.e.*, the provision of public and mixed goods, redistribution of income and price stabilisation.
- **In Portugal (2021) Taxes (53%) and Social Security Contributions (27,1%) represent more than 80% of effective revenues.**

- **In economic terms:**

- Taxes induce important effects in choices and behaviour of economic agents.



EPF – The desirable taxation system (1/8)

- **Characteristics of a "good" tax system:**
 - Fairness (or equity)
 - Efficiency
 - Flexibility
 - Transparency
 - Low administrative costs
 - Financial effectiveness

EPF – The desirable taxation system (2/8)

i. Equity

- The distribution of the "tax burden" amongst individuals must be fair and not subjected to arbitrariness, thus each individual should bear its fair portion of the burden with public activities.
 - Two issues to take into consideration:
 - Tax base
 - Fiscal evasion

Note: *Fiscal equity* has to do with tax incidence and will be addressed in the next lecture.

EPF – The desirable taxation system (3/8)

ii. Efficiency

- Taxes should be selected in order to minimise their interference in efficient decision making of economic agents in competitive markets.
 - Suggestive examples:
 - The window tax (17th and 18th Centuries, England).
 - All terrain vehicle (ATV) tax (20th Century, Portugal).

EPF – The desirable taxation system (4/8)

iii. Flexibility

- The structure of taxes should be designed in order to be an effective tool for maintaining an automatic stabilisation of the macroeconomic environment.
 - Example:
 - *The personal income tax as an automatic stabiliser.*

EPF – The desirable taxation system (5/8)

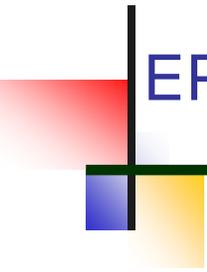
iv. Transparency (and political responsibility)

- The tax system should be easily understood by taxpayers, so that it is easy to identify governments' fiscal measures (tax incidence of major taxes) in order to make governments politically accountable.
 - Example:
 - The *income tax* is a good tax because it is highly transparent.
 - *The levels of fiscal illusion* are far higher in indirect taxes (e.g. VAT) so that they are less transparent.

EPF – The desirable taxation system (6/8)

v. Low administrative costs

- The costs associated with the administration of the tax system and the fulfilment of fiscal obligations should be as low as possible.
 - **Two types of costs:**
 - **Direct costs**
 - Tax administration in Portugal represents about 1.2% of overall net revenues (excluding social security contributions' administration).
 - **Indirect costs**
 - Time, efforts and money required to fulfil tax obligations.



EPF – The desirable taxation system (7/8)

vi. Financial effectiveness

- The revenues generated by the tax system should be adequate and sufficient enough to meet the financial needs and the objectives of fiscal policy.

EPF – The desirable taxation system (8/8)

- **Summary**

In practice, there is often some difficulty in complying with these six requirements.

- **Restrictions of economic, social and political nature**
 - Example: the influence of “*lobbyists*” and pressure groups.
- **Conflict of objectives**
 - Example: the redistribution of income and price stabilization in times of high inflation.

EPF – Tax revenues and efficiency (1/3)

- When fiscal policy interferes with the (efficient) decision making of economic agents in competitive markets, inefficiencies can arise.
 - The generation of the “excessive burden”
 - Taxes have two effects: an income effect (it reduces real income) and a substitution effect (it changes relative prices). The **excess burden of a tax** is a measure of the ***substitution effect***.

EPF – Tax revenues and efficiency (2/3)

- **Excessive burden of taxation**
 - **Excessive burden** can be defined as simply as **the loss of well-being (inefficiency) generated by taxes.**
 - **Excessive burden** is approximately equal to the difference between the loss of global welfare (from consumers and producers) and the (tax) revenues collected as the result of tax.
 - Excessive burden of taxation also known as deadweight loss (see Harberger triangle).

EPF – Tax revenues and efficiency (3/3)

- **The explaining factors**

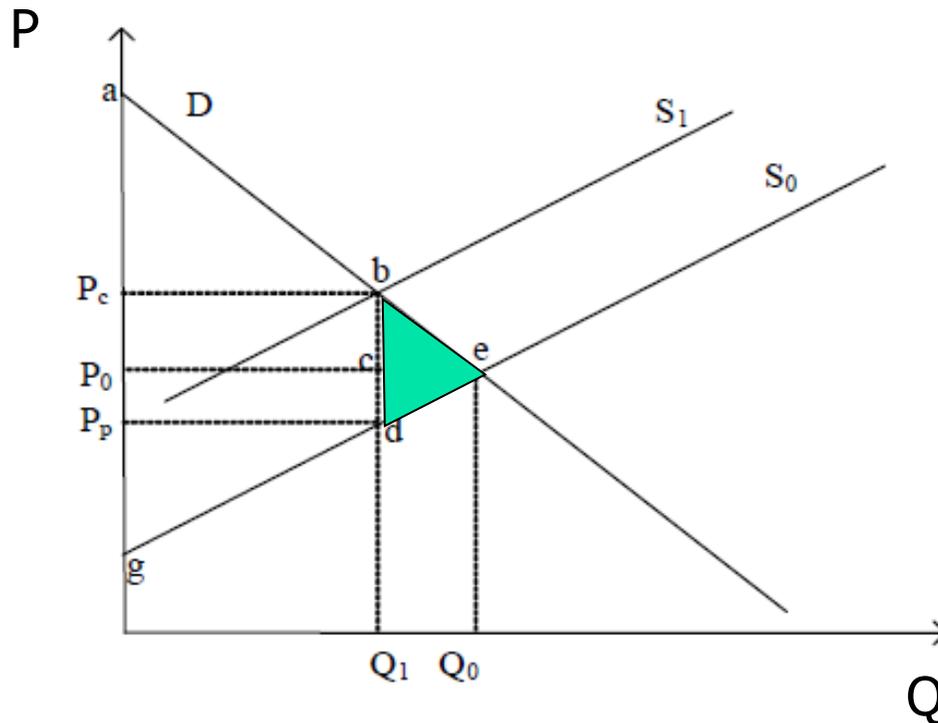
- The excessive burden of taxation (*) depends mainly on:
 - **Amount or level of the tax.**
 - **Elasticities** of demand and supply.

Note: The measure of elasticities should be computed using the *compensated demand function* (which neutralizes the income effect) and not the normal (marshallian) demand function. For simplicity we assume that the income effect of the tax is very small so that the two demand functions are similar and use the normal demand function. This is the reason why we compute an “approximate” value for the excess burden (next slide).

(*) Please refer to next page for graphical analysis.

Economics and Public Finance – Graphical analysis

- **General case:** demand and supply elasticities are normal.
- **Output:** excessive burden shared between producers and consumers.



$$EB = (1/2)\partial Q / \partial P$$
$$= (1/2)(Q_0 - Q_1)(P_c - P_p)$$

Q₀: pre-tax equilibrium

Q₁: after-tax equilibrium

Harberger triangle [bcde]