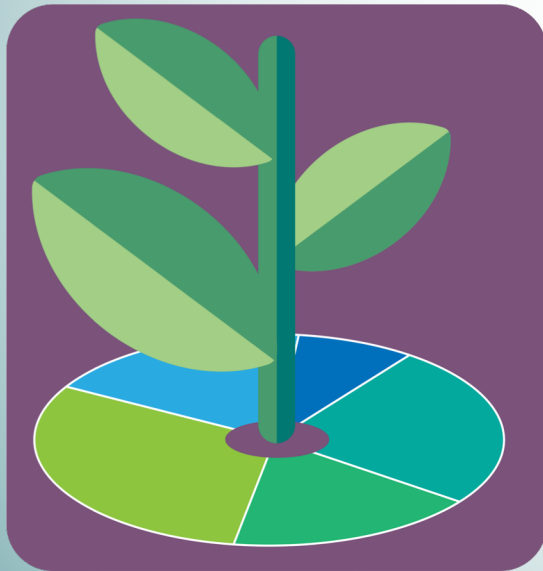


Economics of Social Expenditure

CHAPTER I. INTRODUCTION TO THE STUDY OF THE ECONOMICS OF SOCIAL EXPENDITURE

1.1 The Economics of Public Spending



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DPT. OF ECONOMICS

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Motivation

Fundamental objectives

1. Economics of public spending. Explanatory theories of growth of public spending (Equity and Efficiency). Are there limits to the size of the Public Sector?

2. Public spending and efficiency

3. Incidence and redistributive effects of public spending

4. Evolution and characteristics of public spending. Thematic developments of various items of public and social spending

1. The economics of public spending. Explanatory theories of public spending growth (efficiency and equity)

- **Empirical Evidence: Total Public Expenditure (*Eurostat, OECD*).**
- **In advanced economies, Public Sector has widely surpassed its traditional role (provision of public services) and has been actively involved in improving the quality of life and living standards of citizens.**
- **In most countries there is an increase in public spending, especially in *Welfare state* and caused many countries to be > 40-50%GDP (even in Sweden it was 75%).**
- **In Spain, the evolution of public spending experienced a significant growth in the period after World War II.**

1. The economics of public spending. Explanatory theories of public spending growth (efficiency and equity)

- But more important moments have occurred since democracy began, going from 24% of GDP in 1975 to 42% in 1985. This increase was due to entry into the European Community in 1986.
- From then until now, levels are around 40%. Mostly due to formation of Welfare State (social rights and redistributive purposes) with ↗social expenses.
- Today, Spain's public spending relative to GDP is lower than the European average and higher than the USA and Japan (<40%) and their policies are "*less interventionist*" than the European ones.
- Level and programs of public spending raise issues of efficiency and equity.

1° Why does public spending INCREASE?

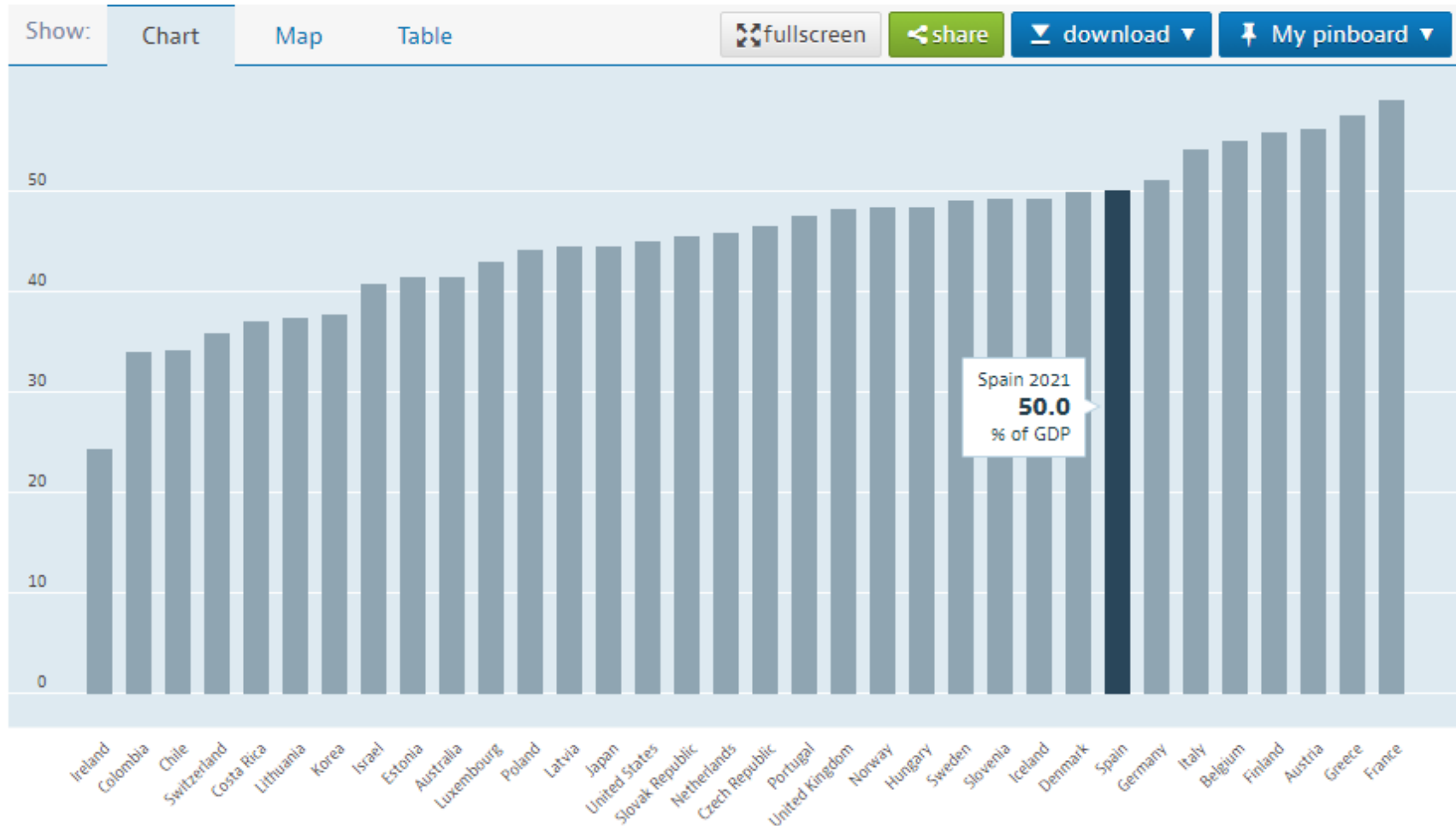
2° Are the increases in spending that have occurred INEFFICIENT?

3° How can EQUITY be evaluated?

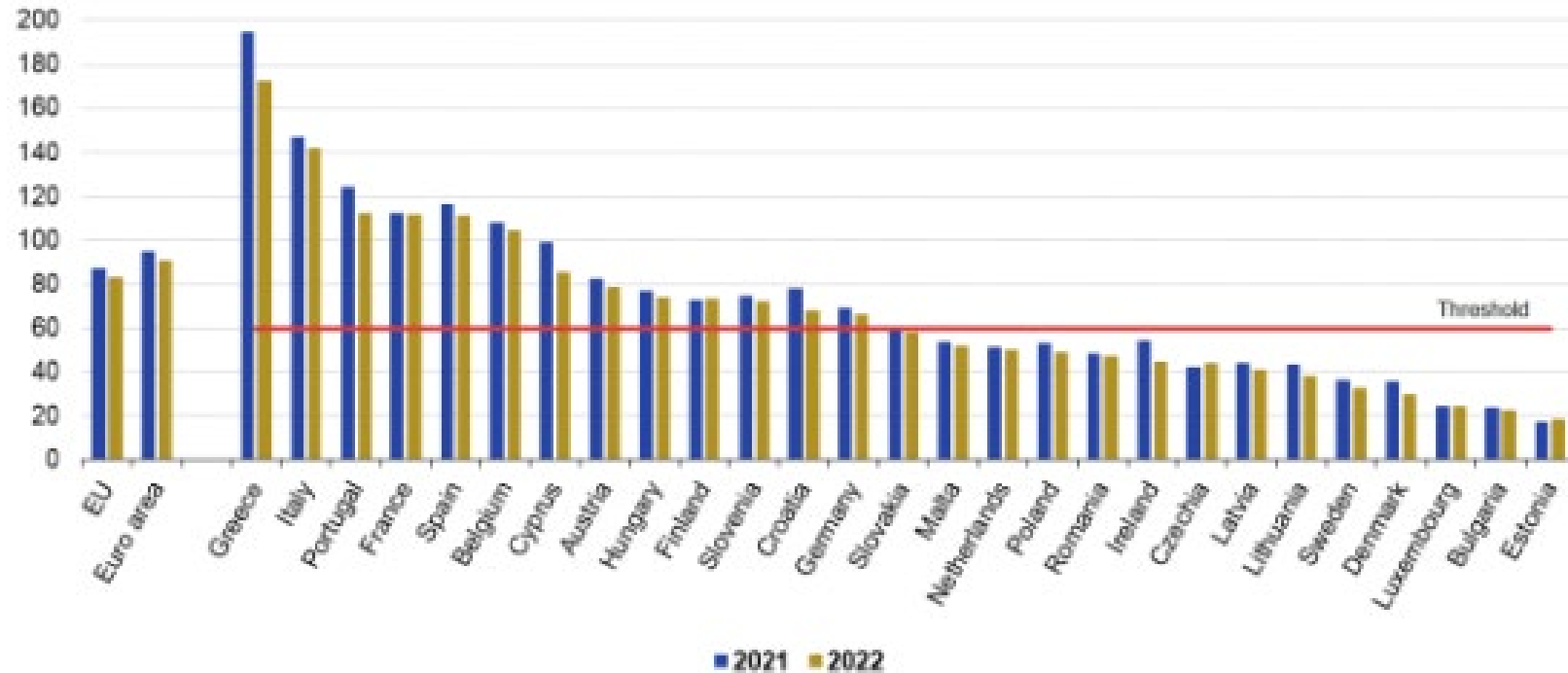
LATEST OECD DATA

General government spending Total, % of GDP, 2021 or latest available

Source: National Accounts at a Glance



General government debt, 2021 and 2022 (1)
 (General government consolidated gross debt, % of GDP)



(1) Data extracted on 20.10.2023
 Source: Eurostat (gov_10dd_edpt1)



1. Explanatory theories of public spending growth (efficiency and equity)

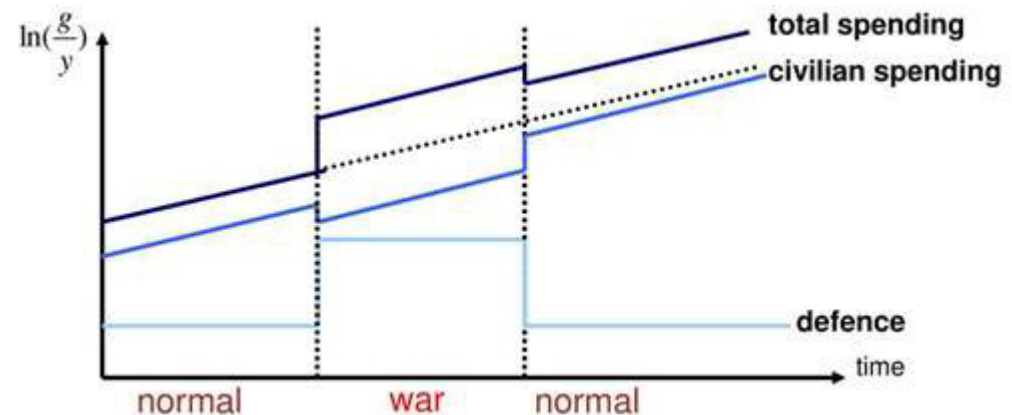
- **WHY IS PUBLIC SPENDING INCREASING?**
- Public spending (G) can grow due to demand and/or supply factors. Thus, there are theories of demand and supply.

DEMAND TEORIES

- ***a) Wagner's Laws I and II (1870, 1890)***
- Law I (Restructuring of society): G would grow in societies of that time, Public Sector would intervene when there are externalities, natural monopolies and to create public goods.
- Law II (Elastic demands for social goods): G explained by average income growth that → spending on preferred goods, since they would have elastic demand with respect to income (Jaén, 2004; Jalles, 2019).
- Criticisms: These Laws may be fulfilled in a specific time period / Spurious correlation: that 2 events occur at the same time does not cause one to cause the other.

1. Explanatory theories of public spending growth (efficiency and equity). DEMAND

- b) Displacement effect. (Peacock & Wiseman, 1919-1961).
- Spending increases “by leaps” (displacements) that coincide with armed conflicts and/or with events of social upheaval (crisis).
- These jumps are maintained once “special” periods are over: the population gets used to it. Criticism: in practice it does not always happen (Molero OCW U. Navarra).



1. Explanatory theories of public spending growth (efficiency and equity). DEMAND

- *c) Income redistribution*. The median floating population will have a tendency to ask for redistributive expenses and increases Expenditure (G). Criticism: maybe “effective” median voter (those who vote) differs from “real” (if the entire population votes).
- *d) Interest groups* (“lobbies” such as trade unions, employers, associations, etc.). They would make, by their influence, based on their particular interests, G increase. Criticism: its importance may not be “transparent” in practice.
- *e) Tax illusion*. Making citizens believe that the cost of G, in terms of taxes, is lower than it really is. Example: VAT, etc. In certain contexts, fiscal illusion is important, such as when G is financed with a public deficit, although it would not explain

1. Explanatory theories of public spending growth (efficiency and equity)

SUPPLY THEORIES

- **a) Relative price effects and inelastic demands.** A good part of public services are intensive in work factor and \Rightarrow Public Sector productivity tends to be lower than that of the Private Sector. Explain that public wages grow and the relative price of public services would rise continuously compared to the private (*disease of costs or Baumol's cost disease*).
- If combined with that demands for public goods are price inelastic, explain what Expenditure (G) grows. Criticism: it does not explain the growth of many spending items such as transfers.
- **b) Political-economic-electoral cycle.** G growth occurs just before elections. Criticism: in practice not easy to prove; Ballot measures are not always in G.
- **c) Bureaucracy.** 1. Theory of Maximize budget (G) by not being able to maximize salaries; 2. Theory of Public employees as “voters” of the party they defend \Rightarrow G. Criticism: real influence is limited.

1. Explanatory theories of public spending growth (efficiency and equity)

SUPPLY THEORIES

- d) Dominant party ideology. “Progressive” governments tend to increase Spending (G) more than “liberal” governments. Criticism: in practice, differences are + in the type of expenses that are promoted than in the level of G.
 - e) Centralization of political power. Fiscal decentralization can both increase G (“Leviathan”) or to decrease it. Critique: No clear empirical evidence.
 - f) Budgeting incrementalist. Any year t usually takes as reference the previous $t-1$, and tends to ΔG compared to previous year (*Anchorage*), versus base 0. Criticism: It does not contemplate other economic and political processes.
 - Which is the best theory? All clearly partial; either they look at demand or supply, but only one factor. G depends on +factors (social, political, economic, ...) and this growth varies between regions and time periods. It would be desirable to combine econometrically (although endogeneity: correlation between variable and error term) several theories together_{1.2}
-

2. Public spending and Efficiency

- 1st element that determines the efficiency or inefficiency of Expenditure increases (G) is the cause that generates them.
- “Irregular” action of the Public Sector can contribute to increase G focused, above all, on the Welfare State (providing preferential goods and income maintenance items) when quality provision of public services was not adequate.
- Unfavorable demographic evolution (ageing, etc.) puts pressure on transfers from the Public Sector (pensions, dependency, health, etc.).
- If it is added that the stabilizing function has not been adequate (inflation, deficit, unemployment, etc.), it leads to the need to review the size of the Public Sector and monitor G.
- Important to control EFFECTIVENESS AND EFFICIENCY in G projects (Public Management). In Spain art. 31.2 Constitution: *“Public spending will carry out an equitable allocation of public resources and its programming and execution will respond to criteria of efficiency and economy.”*

2. Public spending and efficiency

- *Efficiency versus Effectiveness*: it is “efficiency” the concept to be used when assessing public actions.
- *Effectiveness*: Achieve proposed objectives. Degree of efficiency is measured by % in which the objective is reached (Lists (time) waiting in Health, Km of roads of Ministry of Development, etc.). Problem: Does not take into account either cost or benefit or whether alternative methods of achieving goals (*targets + counterfactual analysis: scenarios*).
- *Expenditure efficiency*: Differentiate ...
 - *Productive efficiency* (take public activities as given and see if they are done “productively” right).
 - *Economic efficiency* (compare benefits and costs of public actions and see What activities does the Public Sector have to do and what not?).

2. Public spending and efficiency

- *Productive efficiency (differentiate the technical and the assignative).*
- *Overall efficiency or Paretian (PE) (Farrell, 1957):* It supposes no waste, obtaining maximum production according to existing means or using the minimum means to reach a given level of production. It consists of:
 - *Technical Efficiency (TE):* If it is possible to use minimum means to obtain a given level of production but with a specific combination of factors on the Frontier Curve of Production Possibilities. *Measure of Debreu&Farrell of technical efficiency* (as a measure of *input orientation* unlike those of output orientation) is the +accepted: inefficiency of an allocation is the maximum fraction by which all inputs could be reduced without reducing production. $\text{Efficiency} = 1 - \text{degree of inefficiency}$.

2. Public spending and efficiency

- ***One cause of technical inefficiency is X-Inefficiency:*** Same definition as the technical according to Leibenstein(1966) but causes of inefficiency are due to the action of human factors (disuse by people of their own capacity as happens with the “presenteeism”, etc.) as “unproductive” expenditures in the public sphere.
- ***Assignative Efficiency (AE):*** It involves minimizing the production cost of a given unit by searching for the right combination of factors (work, capital, etc.) according to its price and productivity. It means using the best “technology”.

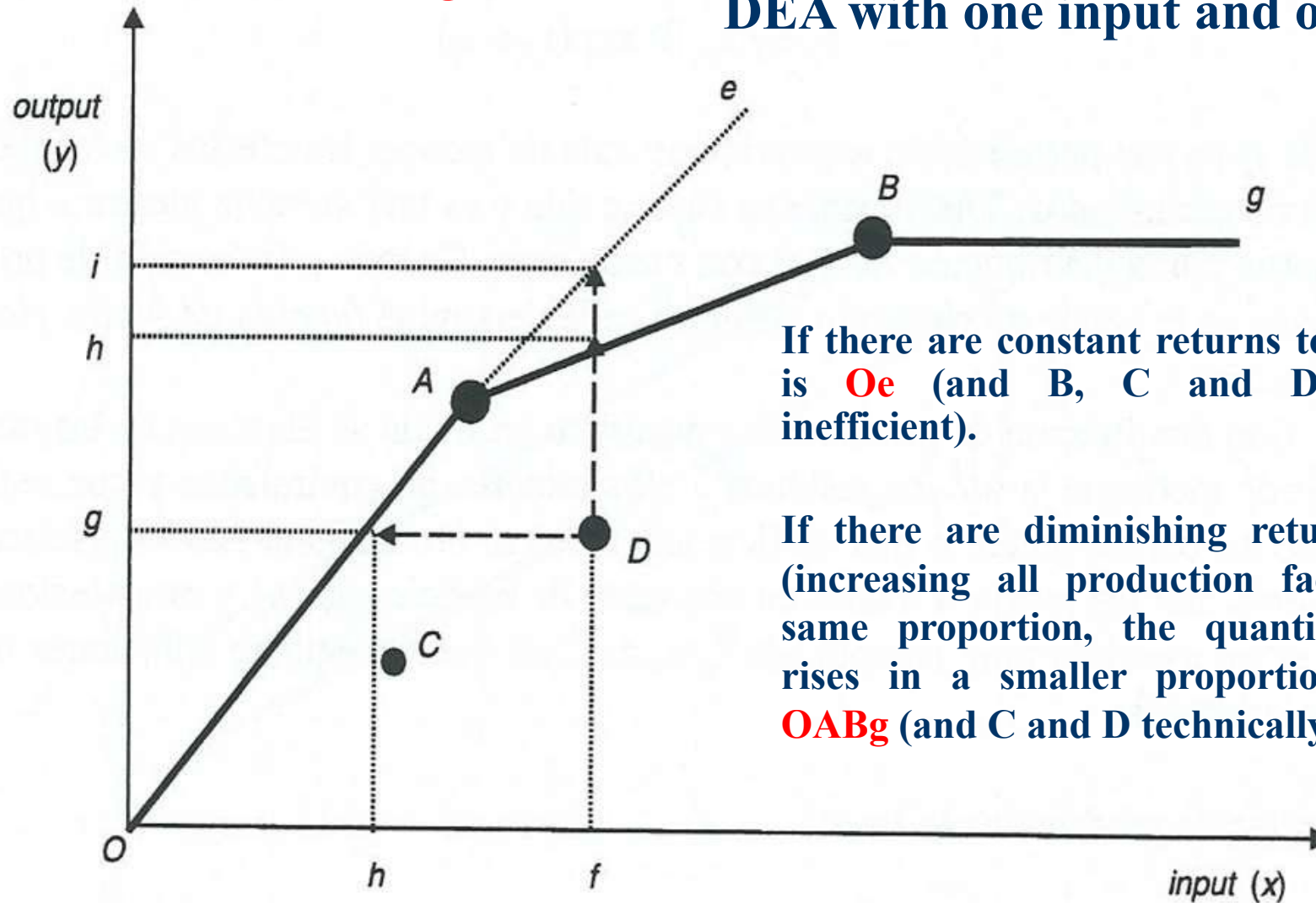
$$PE = TE \times AE$$

2. Public spending and efficiency

- **Techniques to measure technical efficiency and assignative** (example Education, Health,...):
 - **Econometric Techniques** (assume technology is adjusted to specific functional form **Cobb-Douglas, CES-Constant Elasticity of Substitution, etc.**)
 - **Linear Programming Methods** (they obtain a production function from observations of +efficient producers). Basically, they are nonparametric. The most widespread is **DEA (Data Envelopment Analysis)**
- ***Economic efficiency (project evaluation)***: If social benefits exceed costs (its quantification being key). Unlike technical efficiency or assignative, which deal with how an expense should be made, the economic one sees whether or not that expense should be made. Comparison with technical efficiency and assignative.
- There are different techniques to measure economic efficiency in the Public Sector, being different from those of the Private Sector both in prices (social cost) or its non-existence (*shadow prices*) and objectives (improvement of well-being or equitable distribution of income). 2 Techniques:
 - **Social Cost Benefit Analysis (CBA)** of public project.
 - **Cost-Effectiveness Analysis (or Cost-Effectiveness) (CEA)** of public project.
- **Institutionalization of public sector efficiency control.**

But, how much budget is available?

DEA with one input and one output



If there are constant returns to scale CFPP is **Oe** (and B, C and D technically inefficient).

If there are diminishing returns to scale (increasing all production factors in the same proportion, the quantity produced rises in a smaller proportion) CFPP is **OABg** (and C and D technically inefficient).

Source: Albi et al. (2020)

CFPP: Frontier Curve of Production Possibilities

3. Incidence and redistributive effects of public spending

- These implications (guaranteeing a certain standard of living and equal distribution) are one of the reasons for Expenditure growth (G).
- Analysis of who benefits from G (who earns and how much from G policies) is *G incidence*.
- The other part is how G is financed with taxes that affect the welfare of individuals. Quantification of how much they lose as a result of taxes: *tax incidence*.
- Net benefit of public action on welfare (*tax residue*): benefit obtained from G - cost of taxes.
- Simple + form (for example in health or education) is to identify direct beneficiaries but it is limited and causes problems due to:
 - Ignore what G can end up benefiting people other than those to whom it is directed in the first instance. Example: education, displaced people in health, connecting roads, etc.
 - Does not take into account externalities of many G. Example: education, reduce infectious diseases, transport networks, etc.

3. Incidence and redistributive effects of public spending

- **Problems estimating G incidence:**
 - **What should be the unit of analysis? individual or family?**
 - **Set criteria to determine what part of G benefits each unit.**
 - **Most opt for family or home seeing:**
 - **Divisible expenses** (in private goods provided by the Public Sector where they are charged according to consumption and divided by number of household members, such as health, education or pensions, etc.).
 - **Non-divisible expenses** (They benefit the community as a whole as public goods, allocating equally to all families, or proportionally or as a percentage to the reciprocal of their marginal utility such as defence, foreign relations

3. Incidence and redistributive effects of public spending

- Many studies show redistributive effect on G, according to the degree of progressivity (how to allocate these expenses).
- In Spain, especially in social expenses, they are distributed being progressive. **Monetary expenses** (pensions and benefits for unemployment, sickness and/or disability) **are more redistributive** than in-kind expenses (health and education) since these are at 0 cost or whatever your income.
- But tax expenses (what is not collected for giving tax advantages to certain taxpayers or economic sectors) they increase inequality and are regressive.
- They have to be compared with taxes and the tax system is proportional (all the deciles pay almost the same percentage of taxes) and direct taxes are progressive, indirect taxes are regressive and social contributions are an intermediate profile.
- *The essential part of redistribution is done on the SPENDING side and not on income... why?*