Chapter 1 Why & What taxes ?

Introduction to the course

Alain Trannoy AMSE, EHESS

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Definition of taxes (OECD)

- Taxes are compulsory, unrequited payments, in cash or in kind, made by institutional units to government units; they are described as unrequited because the government provides nothing in return to the individual unit making the payment, although governments may use the funds raised in taxes to provide goods or services to other units, either individually or collectively, or to the community as a whole.

Difference with mandatory deductions

- Other term: compulsory levies , contributions

- All payments made to a public institution whatever the public institution provides something in return.

- example of mandatory deduction which is not a tax :

- Pension contribution in the Pay-as-you-go system. (PAYGO)

- In the Bismarkian system, pension benefit is linked to pension contribution
- In the Beveridge system, it is much less true. Pension contribution is much more a tax

- Other examples

- Unemployment contribution
- Statutory Sick contribution
- Statutory Maternity pay

Compulsory

- Car insurance is compulsory. In return you are insured to the damage of your car.

The payment is not made to a public institution

Is the distinction meaningful ?

- When making international comparisons is the aggregation of all mandatory contributions meaningful ?

- YES if we want to measure the fraction of the GDP which is socialized (which is not devoted to private matters)

- YES if we want to measure the edge between before tax prices and after tax prices for comparing the institutional environment of firms.

- NO if we want to make international comparisons of well-being between households

- In particular because there are major differences in the pension system among countries

Pensions

- Two systems

- Pay as you go public pension system
  - Rate of return = earning growth,
- Funding pension
  - Rate of return = interest rate in capital market

- If the Golden rule prevails, the rate of return are the same
  - growth rate = interest rate

- In a globalized world, difference between the two for a small country.

- Typically for an advanced country, the interest rate > the growth rate

Warning

- In this course, only **taxes**

- They may be social security contributions as family benefits but there is no individual compensation for having paid the levies.

Why taxes ?

- Richard Musgrave distinguished three main « branches » of the public sector

- Allocative branch
- Distributive branch
- Stabilization branch

- Independent purposes, aims

Stabilization branch

- We may imagine a world where almost public goods are provided privately

- The GVT will raise taxes or distribute benefits only to smooth the business cycle.
- During booms, it will raise taxes
- During busts, it will distribute benefits

- The GVt will borrow on international capital markets in busts and it will reimburse in booms

Stabilization (ctd)

- Public Deficit is a measure of the degree of stabilization. If positive, the GVT is pushing up economic activity. If negative, the GVT is slowing down activity.

- This is true only if the public deficit is financed in the international capital market and the country is small wrt the remaining of the world.

- If the public deficit is financed by bonds buyed by domestic people (firms or households), the reasoning doesn't hold without other qualifications

Allocation branch : the rationale

- The allocation deriving for free markets is not efficient: there are market failures

- The first fundamental theorem of welfare (FWT) economics is violated (see Microeconomic Theory (Mas Collel, Whinston, Green, OUP)

- If preferences are locally non satiated and if an allocation is a Walrasian allocation, then this allocation is Pareto optimal.

Pareto allocations

- An allocation is Pareto efficient, if it is not possible to find any other allocation that is preferred at unanimity by all individuals according to their preferences (Kolm formulation).
- It is not possible to find an allocation that is preferred by some individuals without deteriotating the welfare of some other individuals.

Two strong assumptions of the FWT

- Universal price quoting of commodities (market completeness)
- Price taking by economic agents
- Violated with public goods, externalities, market power, asymmetric information

Market failures leading to public expenditures

- *Public goods* : the GVT provides (non necessarily produces) public goods

- Many examples : Roads, defence, police, justice,

- *Externalities*: the GVT wants to internalize externalities through Pigouvian taxation

- Many examples: Climat change, housing, savings, investment, unemployment,

Third failure

- Extension of Arrow-Debreu to an uncertain world. States of nature.

- Arrow-Debreu securities, contingent commidities, A commodity *s* that pays 1€ in state *s.*

- All contingent commidities are exchanged on markets and there are equilibrium prices.

- If this system of markets works, you could insure against any bad event.

Failure of private insurance

- Because of this market failure, and risk aversion, there is a lack of private insurance
- Public and social insurance provide a way to correct this failure
- Progressive taxes provide a way to smooth the incomes on the life cycle.

Restore efficiency

- All these expenditures are made to restore the efficiency according to the FWT
- But to finance these expenditures, we have to levy taxes.
- **How to levy taxes in order not to deteriorate efficiency ?**

Distributive branch

- The distribution of welfare, income or wealth coming out from a market economy may be too unequal.

- The rationale for GVT intervention finds its seeds in the Second Fundamental Theorem of Welfare Economics (SWT)

- This theorem gives conditions under which a Pareto allocation can be supported as a price equilibrium with transfers

2nd Welfare theorem

- Consider an economy with a set of preferences and production sets.

- Suppose that every production set is convex as well as every preference relation which should be locally non satiated.

- Then for every Pareto optimal allocation, there is a price vector (different of 0) such that this allocation is a Walrasian equilibrium with transfers. (That is, there is a reallocation of property rights between individuals that is compatible with the Walrasian equilibrium)

Rationale for redistribution

- The distribution of resources to restore the fairness imbedded in the choice of a particular Paretian allocation.

  A particular Paretian allocation means a special weight of individual utilities

- A transfer of initial resources is able to implement a particular conception of fairness among the individuals of a given society

Restore justice: lump sum transfers

- **How to levy taxes to restore justice without undermining efficiency ?**
- In the 2nd welfare theorem, transfers means **lump sum transfers**
- Transfers of property rights on land and capital (expropriation)
- Transfers of properties rights on labor cannot be done in society which bans slavery
- Transfers in cash unrelated to actions of selling or buying in markets (to economic behavior)
- Examples: poll tax, demogrant, taxes on height
- How to classify a transfer as lump sum or not: it can be implemented under the veil of ignorance about how markets work

Why lump sum transfers efficient ?

- Because they only have income effect

- No substitution effect

- Definition: a distorsion (inefficiency cost) with respect to first best (a world without taxes) is a distorsion of prices which entails substitution effects (changes of behaviour at the margin)

Are lump sum transfers feasible ?

- Historical examples

- Land reforms (Reforme agraire)
  - Government-initiated or government-backed property redistribution, generally of agricultural land.
  - Land reform refer to transfer of ownership from a relatively small number of wealthy owners with extensive land holdings to individual ownership by those who work the land.
  - South America, China, France purpose of a revolution
  - With or without compensation

- Ownership of firms
  - In France, in 1981, Nationalization of firms. And then Privatization of them 5 or 10 years after with a maximum of shares per household.
  - Owners in the Nationalisations of 1945 have not been compensated (expropriation). Owners in the Nationalisations of 1981 were compensated.

- They are (very) costly on a political point of view (not taken by the economics reasoning into account)

Objection to expropriation

- Expropriation is fought on libertarian justice grounds

- Robert Nozick thinks that any distribution resulting from free transfers of legitimately acquired property will be just.

- *Anarchy, State, and Utopia* (1974), a libertarian answer to John Rawls's *A Theory of Justice* (1971).

Is wealth tax a response ?

- Do Inheritance tax, wealth tax combined with redistribution of ownership a lump sum transfer?
- It depends on the share of ownership which is exogenous to markets activities YES
- It depends on the price of share which is the result of markets NO
- But clearly a wealth tax/subsidy is closer to a lump sum tax than any other tax instrument
- It is less costly in terms of political terms
- In a closed economy may be a second best option : Maurice ALLAIS (1966, 1977) « L'impot sur le capital et la réforme monétaire ».
- In a open economy, with mobility of persons/capital ?

Theoretical question about lump sum transfers

- Even if lump sum transfers were feasible, are optimal lump sum transfers feasible (in a world without capital) ?

- The answer is no

- The first theorem of optimal taxation (Mirrlees):

- « The curse of talented people »

Taxes in real life are distorsive

- In a way or another, taxes are distorsive, they induce an efficiency cost, a welfare cost.
- A great question in economics : how to choose and calibrate taxes to minimize efficiency losses
- And to some extent restore justice and being themselves just ?
- The issue of optimal taxation a cornerstone of economic theory

What taxes

Main distinctions

- Taxes on flows of transactions
  - taxes on flows on the labor market
    - Income tax, payroll tax (paid by the firms),
  - Taxes on flows on the good markets
    - VAT (ad valorem tax), excise tax (per unit tax)
  - Taxes on flows on the capital markets
    - Income tax on revenues of capital, Tobin Tax, Corporate tax
- All these taxes introduce a edge between the seller price and the buyer price, distorsion with respect to the 1st theroem of welfare economics, The MRS between two goods is different from the MRT between two goods.

- Taxes on the stock of capital, land
  - Property tax, wealth tax,Inheritance tax.

Historical evolution

- Before the industrial revolution
- Taxes on land properties and excise and custom duties
- With the extension of the joint stock company and modern accounting, tax on market flows
- The growing of the size of the GVT and the size of companies goes hand with hand

The tax revenues

- Less than 10% from taxes on stock
- 90% taxes on flows

- 40% on labor flows
- 40% on good flows

- 10% on capital flows

- 20% on capital, 80% on labor more or less the shares in net national income