



# National debate on carbon pricing Key implementation issues

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# Why taxes?

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- Fiscal policy has three (sometimes compelling) objectives:
  1. to **raise revenue** for public spendings (defense, education...)  
elasticity of the tax base must be low (example: land)
  2. to correct for **distributional** issues  
example: progressive income taxes, social contributions...
  3. to **provide incentives** for behavioural changes  
elasticity must be high (means: solutions to avoid the tax)
  
- A carbon tax must play on these three objectives to be both **comprehensive** and **effective**, i.e. to give an incentive to reduce CO<sub>2</sub> emissions and move towards a green economy

# The rationale for carbon price regulation

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- ▶ Candidate policy instruments for pollution are:
  - command-and-control
  - price regulation (taxes or subsidies)
  - cap and trade systems (like EU-ETS)
- ▶ In environmental matters, policy makers are used to favoring command-and-control (administrative approach)
- ▶ But economic theory shows that, **for some pollutants**, price regulation is more *efficient*  
**'efficiency'** = *to reach a given globally optimal target at the lowest global economic cost.*  
example: a large number of small polluters (residential, transport...)

# Market failures and Pigovian tax

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- ▶ Evidence: **market failures** in the presence of public goods (or public bads): *the market does not yield an efficient outcome*
- ▶ Pigou (1920) proposes taxation as a solution
  - pigovian tax level = ‘marginal cost of pollution at the social optimum’
  - requires to associate a monetary value to environmental damages (easy to tell, uneasy to do)
- ▶ « Polluter Pays Principle » (OECD, 1972; EC)
  - Not to be confused:
    - **efficiency principle:**  
*internalization of external costs*
    - **responsibility principle:**  
*polluter pays for damages*

# From 'Pigovian tax' to 'double dividend'

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- ▶ Basic idea:
  - to increase taxation on what is 'bad' for society
  - to reduce taxation on what is 'good' for society
  - under a balanced budget constraint (no increase in fiscal pressure as a whole)
- ▶ Prices should reflect the true (genuine) social costs of goods (if it is free or cheap, it is overconsumed...)
- ▶ So the challenge is twofold:
  - to put taxes on pollutants (which level, which pollutant?)
  - to find the fiscal policy mix that maximizes global welfare
- ▶ What is the 'classic cocktail'?

# Double dividend: the classic cocktail

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- ▶ The classic cocktail is:
  - a CO<sub>2</sub> tax and reductions in social contributions on labour
  - tested (empirically and theoretically) from the 90ies
  - it works: you can really decrease emissions and increase employment
- ▶ But:
  - it's not the solution to all problems (macro effects are rather limited)
  - it raises distributive issues among households and among sectors
- ▶ Many other options are also possible (see the plethoric literature)  
the choice depends on the policy objectives

# A fair balance is required

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- ▶ So, economic theory does not pretend that taxes alone can solve all problems
- ▶ A wide variety of policy instruments exists
- ▶ The challenge is to find the fair/effective balance between complementary approaches:
  - ▶ taxes,
  - ▶ subsidies,
  - ▶ command-and-control,
  - ▶ improved information,
  - ▶ awareness,
  - ▶ education,...

# Distributive issues

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- ▶ Distributive effects of a CO<sub>2</sub> tax may be important:
  - low-income households typically suffer from environmental taxation
  - same at the sectoral level (e.g.: double dividend, not for all sectors)

This raises questions about...

- ▶ **Political acceptability**: the agents should not be worse-off after the implementation of the policy  
but what does “worse-off” mean? Income? Welfare? Opportunities?
- ▶ Message: the wider and more comprehensive the climate policy, the larger the opportunity set to find improvements for everyone (meaning: not only financials, but also, e.g., environmental ones)
- ▶ A typical (generic) solution : **lump-sum transfers** (next slide)

# Lump-sum in a carbon free economy?

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- ▶ A lump sum transfert is an amount of money you receive independently of your own decisions (including your pollution level)
- ▶ It does not kill the incentive of the carbon tax
- ▶ It just corrects for the regressive effects of the tax
- ▶ And it generates a '**carbon-free rebound effect**' which will support economic activity and employment

# Concluding remarks

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- ▶ There exist **many opportunities** to reshape the fiscal policy towards a greener fiscal system, and the carbon tax plays a key role
- ▶ Price regulation is **one among many policy instruments** for pollution regulation
- ▶ **Redistributive effects** may be huge: there is a need for accompanying measures
- ▶ Empirical evaluation of **costs and benefits** is required to set the optimal policy, both **ex ante** and **ex post** (policy monitoring)