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Overview of Allocation Methodologies and Principles

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3rd ECCP Meeting on EU ETS Review
21 May 2007
Brussels

How Markets Work℠

Overview

1. Allocation Choices in EU ETS Phases 1 and 2
2. Allocation Issues for Post-2012
3. Implications of “Idealized” Alternatives
4. Principles in Key Allocation Choices

EU ETS Choices Thus Far

- 2005-7: Phase 1 (Start-up period)
  - Allowances mostly allocated for free (auctioning limited to 5%)
  - Two-stage allocation (sector, then installations)
  - Allocation to facilities largely on the basis of “grandfathering” (emissions)
  - New entrant allocations (formula varied by Member State)
- 2008-12: Phase 2 (First commitment period of Kyoto Protocol)
  - All 27 National Allocation Plans submitted to Commission.
  - Greater use of benchmarking and auctioning

Key Allocation Issues Post-2012

- Specific allocation issues
  - Limits for minimum/maximum auctioning?
  - Criteria for future allocations to sectors?
  - Potential for benchmarking for installations (versus “grandfathering”)?
  - Treatment of new entrants and installations that close?
- General issues
  - Implications for EU competitiveness (others without carbon cap)
  - Perceptions of “fairness” of allocations (perpetual historical allocations) and results (“windfall profits”)
  - Length of allocation period and certainty
  - Changes over time in allocation choices
  - Harmonization across Member States

Three Major Evaluation Criteria

1. **Environmental**
   - Certainty of EU-wide cap
   - Avoid "leakage" of emissions to non-EU regions
2. **Efficiency**
   - Two major efficiency goals:
     1. Minimize compliance cost
     2. Avoid product market "distortions" (e.g., electricity prices *not* reflecting carbon emissions)
   - Other efficiency goals (e.g., low administrative costs, tax reform)
3. **Distributional ("Fairness")**
   - Many groups potentially affected
     - Covered facilities/sectors (of course)
     - But also, consumers (e.g., electricity consumers)
   - Ultimate distributional effects depend upon:
     - Market effects (e.g., CO_2 market, electricity, fuels)
     - Non-market effects (e.g., regulation of "free" allowances, auction revenues)

"Idealised" Options All Achieve Two Major Efficiency Goals

- Choice among "ideal" installation allocation options—emissions-based, benchmarks, auctions—does ***not*** alter:
  - **Firms' decisions** to control emissions
  - **Total compliance costs** of achieving the cap
  - **Effects in product markets** (e.g., electricity price effects)
- Product price effects are an ***intended consequence*** of emissions trading
  - ETS aims to encourage a general shift to a lower-carbon economy
- Choice of allocation is "only" a question of distribution
- Important caveats regarding efficiency:
  - "Updating" for installations (including new entrant allocation, closure rules) would modify incentives and create inefficiencies
  - Auctions may lead to efficiency gains (tax reform, regulated markets)

Principles Involved in Various Allocation Choices

- Free allocation can offset "stranded costs" that some operators incur
  - But, "stranded costs" are time-limited, depending on asset life
  - Also, others bear increased costs (e.g., electricity customers)
- Benchmarking (*ex ante*) has distributional implications that differ from emissions-based approaches
  - But, still is based on historical information (not updated)
- Auctioning appears to be "simple"
  - But, deciding what to do with auction revenues can introduce complexities

Principles Involved in New Entrant Allocations and Closure Rules

- New entrant allocations and confiscating closed facility allowances are form of "updating"
  - Thus both distort least-cost choices—favour additional production over consumption efficiency and new capacity over better use of existing capacity
  - *New capacity built after a certain date is **always** a "new entrant"*
  - ***Only** capacity in place before the given date is an "incumbent"*
- Different new entrant allocations in different Member States leads to an additional inefficiency
  - Minimising differentiation should reduce this inefficiency
- But which installations should be treated as "similar" for this purpose?
  - **Principle of "equivalent capacity"** is to define (in advance) which types of capacity should qualify for new entrant allocation *in a way that preserves the cost-minimising incentives for investment in low-emitting technology*

Principles Involved in Harmonisation

- Harmonisation more important where non-harmonisation increases compliance costs/inefficiencies
- Non-harmonised new entrant allocations raise efficiency concerns
  - Differentiation *within* MSs weakens incentive for clean technology
  - Differentiation *between* MSs also distorts investment decisions and thus internal market
- Non-harmonised auction shares and incumbent allocations affect efficiency less
  - (Possible) distortion of internal market – but without updating this is limited
  - **BUT**: with any new entrant reserve, higher auction proportions may be more efficient
- Some non-harmonised parameters give rise to "prisoners' dilemma"—Member States find difficult to change unilaterally and thus may prefer harmonisation
  - Cap level – national caps for EU ETS vs. overall EU reduction targets
  - NE allocations – investment incentives relative to competitors vs. overall efficiency
  - Level of auctioning – concerns about covered sectors vs. impacts on other groups

Principles Involved in Certainty

- Greater certainty over time possible for allowances along different dimensions
  - Absolute allocation, allocation share, benchmark levels
- Uncertainty creates an option value of waiting for more information
  - May reduce incentives to make investments in low-emitting technologies
- But, in terms of investment, uncertainty about allocation likely to be less important than uncertainty on allowance price
  - Price uncertainty primarily based on cap-setting, not allocation

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