NERA
Economic Consulting

Allocation Choices for a Carbon Trading Program

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How Markets Work℠

Agenda

- Economic Efficiency of “Idealized” Allocation Options
- Real-World Allocation Considerations
- Implications for Future Allocation Choices

"Idealized" Allocation Alternatives All Efficient

Starting point: choice among "idealized" allocation alternatives—emissions-based, benchmarks, auctions—is not primarily an efficiency issue

- Choice of "ideal" allocation method does ***not*** alter:
  - **Firms' decisions** to control emissions
  - **Total compliance costs** of achieving the cap
  - **Effects in product markets** (e.g., electricity price effects)
- Thus, in "ideal" case, choice of allocation approach is "only" a question of distribution (ignoring setting of overall cap)
- Important caveats regarding efficiency:
  - "Updating" inefficient (changes product price effects, investment, overall costs)
  - Auctions may lead to efficiency gains (e.g., tax reform, regulated firms)

In "Real World" Circumstances Not "Ideal" and Non-Efficiency Goals Important

In reality, other factors and objectives influence allocation choices

1. **Mitigate "competitiveness" effects of carbon trading**
   - **Higher product prices/decreased production** undesirable "abatement option"—particularly if "leakage" occurs
   - **One "solution:" updating** based on output (even though inefficient)
2. **Investment and industrial policy objectives**
   - **Investment "subsidy"** through New Entrant allocations (**form of "updating"**) motivated by competition among Member States for investment
3. **Protect consumers from impacts of trading scheme**
   - **Increased product prices** (e.g., electricity prices) a concern
   - **Updating allocation** (including New Entrant allocation) tends to limit effect
   - **Electricity market regulation** also proposed (but counter to liberalization)

Real-World Allocation Considerations (cont.)

4. "Fairness" objectives

- **Allocation to closed installations** has low political acceptability
- **"Fair" allocations** may mean **updated** allocations (e.g., because grandfathered rights "out of date")
- **"Fair" allocations** may mean **benchmarked** allocations (e.g., because emissions-based "penalizes" those who already reduced emissions)

5. Overcoming pre-existing market imperfections

- **Competition policy** ("barriers to entry") and argument for New Entrant allocations
- **Firms' cost of capital** reduced by free allocation through better credit rating

Real-World Allocation Considerations (cont.)

6. Technology policy

- **Preferences** for specific abatement options
- **Dynamic efficiency** arguments via long-run technology forcing (e.g., renewables)
- **Special allocation rules** for CHP, renewables, particular industries, etc.

7. Security of energy supplies

- **New coal generation** carbon cost reduced through **benchmarked New Entrant allocations** (higher for coal than gas and other technologies)

Future Major Allocation Issues Given "Real World" Considerations?

- "Updating" to persist/expand due to various concerns?
  - New Entrant allocations, growth projections, closure rules, updated allocations as "solutions" to various problems (e.g., competitiveness, price increases)
  - Size of inefficiencies? Can they be reduced?
- Greater interest in auctioning/trajectory?
  - Conflict with concerns about price effects, competition, "stranded costs"?
  - Some dubious arguments (e.g., reduces costs in deregulated areas)
  - Determining appropriate "stranded costs?" revenue recycling?
- Allocations to non-participants?
  - Major element in "upstream" proposals in the U.S.
  - Precedent in "indirect allocation" proposals for "downstream" programs

Future Allocation Issues (cont.)

- Greater interest in (ex ante) benchmarks?
  - Used for New Entrants now.
  - Complexity of benchmarks? Data issues? Efficiency concerns?
- Harmonization of NAPs across Member States in EU ETS?
  - What decisions at EC level versus at MS level?
  - Deal with perceived problems of EU ETS Phase 1 (e.g., “over-allocation,” treatment of “similar” installations, “prisoner’s dilemma” in new entrant allocations)
- Importance of greater certainty (timing of allocations)?
- Linkage between cap setting and allocation methods?
  - Size of “pie” linked to how it is divided up?

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