Clean Air for Less: Exploiting Tradeoffs Between Different Air Pollutants

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The problem:

- The Clear Skies initiative and competing legislative proposals take pollutant-by-pollutant approach to address problems caused by emissions of both nitrogen oxides (NOx) and sulfur dioxide (SO2).
- As a result they miss an important opportunity to cut compliance costs without reducing expected environmental protection.
- Claims of cost-effectiveness are unwarranted.

Conditions for Cost-effectiveness

- Emissions permit trading– with one pollutant: $MC_1 / MB_1 = MC_2 / MB_2$
- With two pollutants: cost effectiveness requires same result, where numbers are types of pollution and not different sources.
- CE analysis requires some assessment of incremental marginal benefits of each pollutant.

Effectiveness: Choosing the right metric

- Precedent:
  - Climate change: Tons of carbon equivalent
  - Stratospheric ozone: ozone depleting potential
- Local air pollution? NOx and SO2 and VOCs?
- PM 2.5 is the key issue: thus focus on PM 2.5

Uncertainty Need Not Lead to Inaction

- Montero (2002): even with uncertainty about the marginal benefits of different pollutants: mkt integration is beneficial provided MB is flatter than MC.
- MB of fine PM2.5 likely to be flat.