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Fact Sheet

"Consequences of Cap and Trade"

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SUMMARY

The U.S. Congress continues to debate a potential cap-and-trade program for the control of greenhouse gas (GHG) emissions. The economic effects of such a bill remain in dispute, with some arguing that a cap-and-trade program would create jobs and improve economic growth and others arguing that the program would shift jobs overseas and hit households with large energy price increases.

This report applies a global economic model to evaluate different emission reduction paths and to offer insights to policymakers about how to the design the program to lower the costs of achieving long-run environmental goals. The study examines emissions reduction paths that are broadly consistent with proposals by President Obama, Representatives Waxman and Markey, along with two cost minimizing paths that reach similar goals.

KEY FINDINGS

The study estimates that alternative paths to reach an emission reduction target of 83% below 2005 levels by 2050:

- reduce cumulative U.S. emissions by 38% to 49%, about 110 to 140 billion metric tons CO_2
- reduce total personal consumption by 0.3% to 0.5%, or about $1 to $2 trillion in discounted present value from 2010 to 2050
- reduce the level of U.S. GDP by around 2.5% relative to what it otherwise would have been in 2050
- reduce employment levels by 0.5% in the first decade, with large differences across sectors
- create an annual value of emission allowances peaking at around $300 billion by 2030, and a total value of about $9 trillion from 2012 to 2050

The different timing of emissions reductions under the various paths explored has significant effects:

- Without banking, in the short run the Obama and Waxman-Markey emission paths result in more gradual carbon price rises than the paths that minimize the present value of abatement costs. In the medium run, Obama and Waxman-Markey targets are relatively more stringent.

Incremental stringency produces high incremental cost, e.g. an extra 8% reduction increases costs by 45%.

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