

Results from Exercise 7

Comparison of key findings:

| Variable | CD | PC |
|----------------------------------------------|-----|------|
| Impact on energy use, % | -20 | -1.2 |
| Cost in CV, billion \$ | 135 | 150 |
| Tax revenue raised, billion \$ | 120 | 148 |
| Net cost before climate benefits, billion \$ | 15 | 2 |

How well does the policy work?

| Criterion | CD | PC |
|----------------------------------|------------|-------------|
| Effective at reducing emissions: | yes | no |
| Lower cost in CV: | yes | no |
| Higher revenue raised: | no | yes |
| Low net cost: | yes | very |

- Policy is either effective or inexpensive on a net basis
- Can rule out worst case: ineffective and expensive

Climate benefits under CD:

| | |
|---------------------------------------|----------------|
| Energy-related CO2 emissions in 2019: | 5 billion tons |
| Reduction under CD: | 1 billion tons |

| | |
|---------------------------------|--------------|
| Social cost of carbon, MC_e : | \$50/ton |
| Total reduction in damages: | \$50 billion |

- Net gain overall: \$50 B - \$15 B = \$35 B