



Design Features of Climate Legislation

The Search for Wise Energy Policy

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Kenneth Richards

School of Public and Environmental Affairs, Indiana University

Smith School of Enterprise and the Environment, University of Oxford



Discussion of Design Features

- Emissions Reduction Targets
- Point and Scope of Regulation
- Cost Containment Mechanisms
- Activities Outside the Cap
- Distribution of Allowances and Auction Revenues
- International Integration



Goal for Climate Change Legislation

To develop a feasible, cost-effective mechanism to reduce greenhouse gas emissions to a specified target level.



Policy Perspective

- **Appropriate Targets**



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- **Minimize Costs**



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 - **Cost-effective Abatement (AC)**



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 - **Administrative/Implementation Costs (IC)**



Policy Perspective

- **Appropriate Targets**
- **Minimize Costs**
 - **Cost-effective Abatement (AC)**
 - **Public Finance Impacts (PF)**
 - **Administrative/Implementation Costs (IC)**
- **Constraints**
 - **Legal Feasibility**
 - **Political Feasibility**



Policy Perspective

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- Minimize Costs
 - Cost-effective Abatement (AC)
 - Public Finance Impacts (PF)
 - Administrative/Implementation Costs (IC)
- Constraints
 - Legal Feasibility
 - Political Feasibility

**Minimize AC + PF + IC,
s.t., Environmental, Legal and Political Constraints**



Discussion of Design Features

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When we address these design features we are really dealing with elements of our constrained cost-minimization framework and tradeoffs among those elements.



Mechanisms to control abatement costs

- Market-based system (cap-and-trade or taxes)
- Banking and borrowing
- Price cap/safety valve

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- Choice of cap and trade may help with political constraints

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Mechanisms to control abatement costs

- Market-based system (cap-and-trade or taxes)
- Banking and borrowing
- Price cap/safety valve

Interactions

- Choice of cap and trade may help with political constraints
- When using a safety valve we are implicitly relaxing the environmental constraint should costs be higher than expected

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Mechanisms to Reduce Implementation Costs

- Regulate upstream – natural gas distributors, petroleum refineries, coal mines – to minimize the number of covered entities

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Mechanisms to Reduce Implementation Costs

- Regulate upstream – natural gas distributors, petroleum refineries, coal mines – to minimize the number of covered entities

Interaction

- Regulating upstream also broadens the coverage providing more opportunities for low-cost emissions reductions.

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Further Mechanisms to Control Abatement Costs

- Offset systems to take advantage of low cost carbon sequestration and methane abatement opportunities.

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- Offset systems to take advantage of low cost carbon sequestration and methane abatement opportunities.

Interactions

- If offset system does not provide sufficient assurance of claimed reduction, the environmental target constraint is not met

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Further Mechanisms to Control Abatement Costs

- Offset systems to take advantage of low cost carbon sequestration and methane abatement opportunities.

Interactions

- If offset system does not provide sufficient assurance of claimed reduction, the environmental target constraint is not met

Recommendation: Evaluation methods that demonstrate “independent reproducibility” in estimates.

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Mechanisms to Address Public Finance Impacts

- Auction allowances, recycle revenue to General Fund and reduce distortionary taxes

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Interactions

- Control of the distribution of the allowances, whether through direct allocation or use of auction revenue, are a favorite tool for building political consensus

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Recommendation: Recycle the revenues through state treasuries to reduce distortionary state taxes and address regional political interests.

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Mechanisms to Promote Political Feasibility

- Allocate allowances to electric utilities to reduce impacts on rate payers
- Provide additional electricity and natural gas rate relief measures for low income families
- Reserve portion of allowances for new entries to industries

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- Allocating directly to utilities misses opportunity to displace distortionary taxes— plus problem of competitive vs. regulated utilities

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Mechanisms to Promote Political Feasibility

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- Reserve portion of allowances for new entries to industries

Interactions

- Allocating directly to utilities misses opportunity to displace distortionary taxes— plus problem of competitive vs. regulated utilities
- Rate relief and allocations for new industry entrants dulls the price signal the lies at the heart of a market-based system

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Mechanism to Protect the Environmental Target

- Avoid “leakage” by requiring imports from uncapped countries in energy intensive industry to submit allowances on embedded carbon.

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Interactions

- Has important implications for political support from energy-intensive domestic industry

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Mechanism to Protect the Environmental Target

- Avoid “leakage” by requiring imports from uncapped countries in energy intensive industry to submit allowances on embedded carbon.

Interactions

- Has important implications for political support from energy-intensive domestic industry
- Could involve substantial implementation costs to develop and enforce rules

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Mechanism to Protect the Environmental Target

- Avoid leakage by requiring imports from uncapped countries in energy intensive industry to pay a carbon tariff on embedded carbon.

Interactions

- Has important implications for political support from energy-intensive domestic industry
- Could involve substantial implementation costs to develop and enforce rules
- Could conflict with international trade agreements

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Take Home Lessons - General

- The design of climate legislation involves a web of interactions among cost elements – abatement costs, public finance impacts, and implementation costs – environmental goals and legal and political constraints.
- We should do our best to understand the implications – particularly recognizing when we are compromising one element in pursuit of another.



Take Home Lessons - Specifics

- Auction allowances – recycle revenue to reduce distortionary taxes, protect vulnerable households
- Recycle through state tax systems to address regional political concerns
- Avoid compromising the price signal that lies at the core of the program
- Require offset methods to be tested for independent reproducibility
- Apply controls upstream to reduce implementation costs



A Final Issue

Observation:

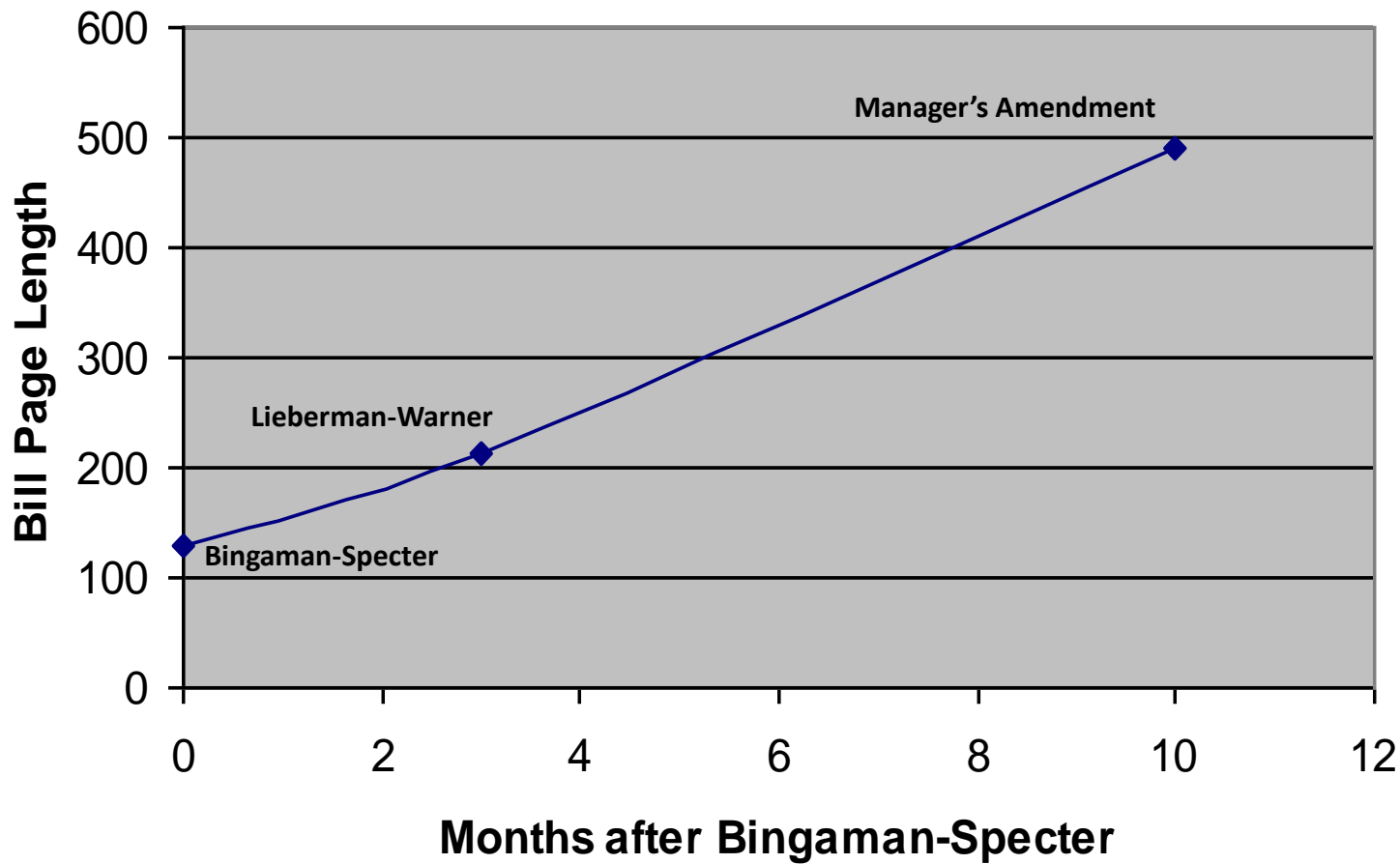
“The problem with political jokes is they get elected.”

Corollary:

The problem with policy jokes is they get adopted.

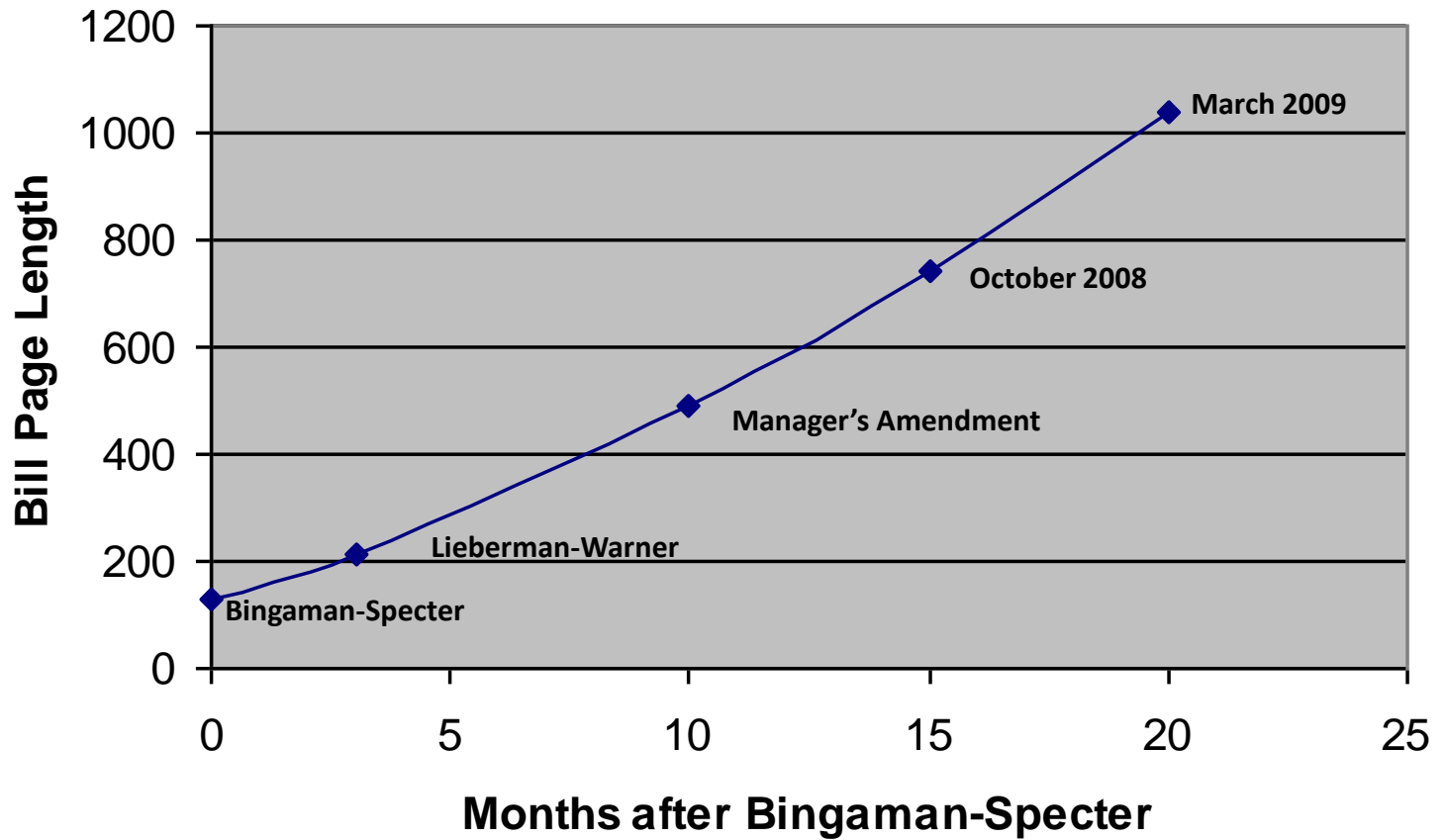


Effect of Delaying Climate Bill





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