

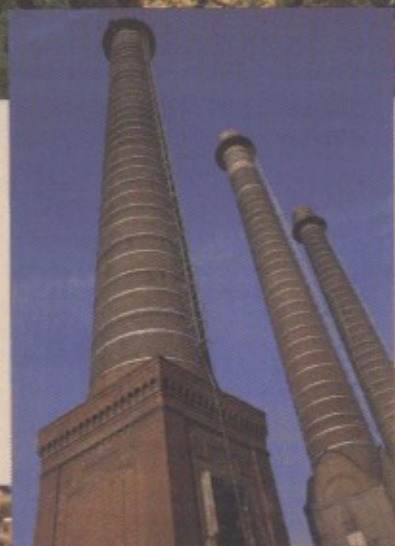
T. H. TIETENBERG



EMISSIONS TRADING

Principles and Practice

Second Edition



Contents

<i>Figures and Tables</i>	vii
<i>Preface</i>	ix
<i>Abbreviations</i>	xi
1. Introduction	1
<i>Early History</i>	2
<i>Describing the Evolution</i>	5
<i>The Evolution of Emissions Trading</i>	6
<i>The Evolution of Design Features</i>	17
<i>An Overview of the Book</i>	21
2. The Conceptual Framework	25
<i>The Regulatory Dilemma</i>	25
<i>The Cost-Effectiveness Framework</i>	25
<i>Cost-Effective Permit Markets</i>	27
<i>The Role of Transactions Costs</i>	40
<i>The Role of Administrative Costs</i>	42
<i>The Role of Technical Change</i>	43
<i>Summary</i>	45
3. The Consequences of Emissions Trading	48
<i>The Nature of the Evidence</i>	49
<i>Ex Ante Evaluations: The Evidence</i>	55
<i>Ex Post Evaluations: The Evidence</i>	60
<i>Summary</i>	72

4. The Spatial Dimension	75
<i>Difficulties in Implementing an Ambient Permit System</i>	75
<i>Possible Alternatives</i>	78
<i>Summary</i>	102
5. The Temporal Dimension	107
<i>Borrowing, Banking, and the Nature of the Environmental Target</i>	107
<i>Linking Emissions and Pollutant Concentrations</i>	108
<i>The Role of Banking and Borrowing</i>	111
<i>Strategies for Controlling Seasonal or Episodic Peaks</i>	115
<i>Summary</i>	123
6. The Initial Allocation	127
<i>Initial Allocation Approaches</i>	127
<i>Comparing the Allocation Approaches</i>	131
<i>Cost-Effectiveness Implications of the Initial Allocation</i>	139
<i>Summary</i>	141
7. Market Power	144
<i>Permit Price Manipulation: Conceptual Models</i>	144
<i>Leveraging Power Between Output and Permit Markets</i>	150
<i>Ex Ante Simulations</i>	152
<i>Results from Experimental Studies</i>	155
<i>Mechanisms for Controlling Market Power</i>	157
<i>Programmatic Design Features that Affect Market Power</i>	158
<i>Summary</i>	161
8. Monitoring and Enforcement	165
<i>The Nature of the Domestic Enforcement Process</i>	165
<i>The Nature of the International Enforcement Process</i>	168
<i>The Economics of Enforcement</i>	170
<i>Current Enforcement Practice</i>	176
<i>Summary</i>	183
9. Lessons	188
<i>Lessons about Program Effectiveness</i>	188
<i>Lessons about Instrument Choice and Program Design</i>	192
<i>Lessons for Theory-Based Expectations</i>	203
<i>Lessons about Ex Post Evaluation</i>	204
<i>Concluding Comments</i>	205
<i>References</i>	207
<i>Index</i>	225
<i>About the Author</i>	233