International Emission Trading

From Concept to Reality



Table of contents

utive Summary	I
Introduction: Climate Change, the Energy Sector and Emission Trading	
The Kyoto Protocol and Emission Trading	
 Emission Trading: What Is It and Why Is It an Attractive Policy? Emission Trading under the Kyoto Protocol: Promoting Efficiency The US SO₂ Trading Programme and the Challenges Faced by 	
International Emission Trading	30
Modelling Emission Trading: How Much Money Can It Save?	3!
A Review of the Models: Quantifying the Advantages of Emission Trading	g 3!
The IEA Model: Confirming the Advantages of Emission Trading	4
A Sobering Critique	4!
The Energy Dimension: A Power Generation Case Study	4
Simulating Power and CO ₂ Trading – Lessons from Eurelectric	49
Investments (not Emission Trading) Bring Compliance	
Testing Alternative Rules	
Lessons from Eurelectric Simulations	
CO ₂ Trading – How Are Decisions Made?	58
Elaborating Short-Term Trading Decisions	
Long-Term Options	
Energy Decisions Call for a Carbon Price Now	6
Developing Rules for International Emission Trading	6
Setting Up the System: Quantified Targets, Eligibility and Monitoring	J 6
Measuring and Monitoring Emissions	
A Registry System for Tracking AAUs	7
Setting Up the System: Liability and Enforcement	
Assessing Different Liability Options	
Mandatory Reserves: a Weapon against Overselling?	8

TABLE OF CONTENTS

	Other issues	83
	"Supplementarity" and "Hot Air"	83
	The Risk of Market Power	88
	Private Sector Participation	90
	A Complex Regulatory Framework for a Simple Policy Tool?	94
6	From Perfect Markets to Reality: the IEA Simulation	95
	Setting Up the Simulation	98
	Modelling Country Abatement and Trading Strategies	98
	Rules for the Simulation	99
	Organising International Trades	102
	The Outcome: Reduced Compliance Cost Despite The Uncertainties	105
	Emission Targets Were Comfortably Met	105
	A Stable and Liquid Market Emerged	107
	Trading Reduced Compliance Costs: but Could They Have Done Even	
	Better?	110
	Lessons For an International Trading Regime	118
	What Kind of Market Can We Expect?	119
	Rules for Trading	122
	In Summary	123
6	Global Participation in Emission Trading	125
	Engaging Developing Countries	126
	Climate Stabilisation and Economic Benefits for the Developing World	126
	Alternatives to Country Caps: Options for Developing Countries	127
	Kyoto without the US: Market and Policy Implications	130
	The Emission Gap without the US	131
	Quantifying a Market Response without the US	132
	A Less Ambitious Objective at Lower Cost	137
	Allowing Diversity, Preserving Efficiency	138
	• • •	
A W	EEK IN THE LIFE OF AN EMISSION TRADER	139
	International Emission Trading: What Is Needed Next?	143
	Implementing the International Framework	
	From the Bottom Up	144
	Domestic Policy: the Involvement of the Private Sector	146
	Summary	147
Gloss	ary	149
Dafar	oncas	153