Contents

Preface xi 1 Why the Earth Is Getting Warmer Just a tiny little bit The greenhouse effect 3 Why it all comes down to carbon dioxide Other greenhouse gases The human influence 12 One more degree already 14 The past 800,000 years Correlation and causality: A solvable puzzle 21 On to the North Pole How warm will it get? What is so bad about it? 2 Reshaping the World's Energy Matrix 33 The first climate accords 33 The Kvoto Protocol 38 The climate sinners The world's energy matrix 40 "Green" electricity The nuclear alternative 48 Storing fossil-fuel waste and nuclear waste 53 Space or waste? How long will the fossil and nuclear fuels last? Cheap and expensive ways to reduce the emission of CO₂ 70 The law of one price and the European emissions trading system

Feed-in tariffs, instrumental goals, and European policy chaos 79

3 Table or Tank? 85

Capturing the sun 85

What is bioenergy?

"Green" gasoline 91

More than electricity 93

A dubious eco-balance sheet 96

The BtL hope 99

Slash and burn 100

One hectare for me! 102

Farmers to OPEC! 107

The Tortilla Crisis 113

The Ratchet Effect 115

A tale of carbon and man 117

4 The Neglected Supply Side 125

Reckoning without one's host 125

The missing regulating screw 130

Supply and demand 132

How "green" policies shift the demand curve 136

Rembrandts vs. cars: The carbon supply 140

Carbon leakage: Grabbing from the collection box 143

Nature's supply 148

How much stays in the air? 149

At the mercy of the sheikhs 157

What drives the resource owners? 159

Greed and sustainability 163

Nirvana ethics 165

Wrong expectations 166

The social norm 167

Why extracting more slowly makes the cake bigger 172

Why carbon deposits should not be sealed off 175

The fear of a coup 178

5 Fighting the Green Paradox 183

The impotence of politics 183

The Green Paradox 188

A bit of theory 192

The Green Paradox and carbon leakage 196 Will production costs and replacement technologies stop extraction? 201 Temporary and permanent price changes 207 208 Paling green Super-Kyoto 209 Leading by example? 213 Source taxes: A supply-side policy 216 Carbon tax terrors 220 More forests 227 Instruments and goals 229

Notes 235 Index 261