TABLE OF CONTENTS

1 Preface 1

PART I. FOUNDATIONS OF A GREEN SOCIETY 5

- **2** Green History 7
- **3** Principles of a Green Society 17
- **4** Green Efficiency 27
- **5** Regulating Externalities 41
- **6** Green Federalism 50
- **7** Green Fairness 57

PART II. SUSTAINABILITY IN A PERILOUS WORLD 7

- **8** Green Economics and Concepts of Sustainability 73
- **9** Green National Accounting 83
- **10** The Lure of Exo-civilizations 95
- 11 Pandemics and Other Societal Catastrophes 110

PART III. BEHAVIORALISM AND GREEN POLITICS 127

- **12** Behavioralism as the Enemy of the Green 129
- **13** Green Political Theory 141

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- vi TABLE OF CONTENTS
- **14** Green Politics in Practice 153
- **15** The Green New Deal 170

PART IV. GREEN ACROSS THE SOCIAL AND ECONOMIC LANDSCAPE 177

- **16** Profits in a Green Economy 179
- 17 Green Taxes 189
- **18** The Double Externality of Green Innovation 204
- **19** Individual Ethics in a Green World 225
- **20** Green Corporations and Social Responsibility 239
- **21** Green Finance 254

PART V. GLOBAL GREEN 265

- **22** Green Planet? 267
- 23 Climate Compacts to Protect the Planet 281

PART VI. CRITIQUES AND FINAL REFLECTIONS 295

- **24** Skeptics of Green 297
- **25** A Tour of the Spirit of Green 314

Notes 323

Index 337

1

Preface

Growing up in the high desert of New Mexico, I saw green as a welcome relief from the arid landscape. "It is so green," my father would say as we drove up to the family cabin in the mountains. That usually meant he hoped there was enough water in the stream for trout fishing. Green to my father meant trout in the pan.

My view of the meaning of "Green" has changed since my willowed fishing days. Green has taken on a life of its own, becoming a social movement that reflects a new approach to individual actions, companies, political activities, and laws. It is an interconnected set of ideas about the dangerous side effects of modern industrial societies and how we can cure, or at least curb, them. In this book, "Green" with a capital *G* represents the movement to deal with the collisions and contagions of the contemporary world. When written with a lowercase *g*, "green" refers to the perceived color of trees and plants.

When I sketched this book in my mind a decade ago, I hoped to address the challenges raised by economic growth and globalization and their unintended side effects. The side effect that has engaged me most is climate change, and the search for policies to slow global warming generated many of the ideas in this book. As the final words of this book are being written, the world is presently haunted by another scourge, the pandemic caused by the novel coronavirus.

2 CHAPTER 1

Plagues are as old as climate change is new, but the solutions have a common core of approaches. Societies need to combine the ingenuity of private markets with the fiscal and regulatory powers of governments. Private markets are necessary to provide ample supplies of goods such as food and shelter, while only governments can provide collective goods such as pollution control, public health, and personal safety. Operating the well-managed society without both private markets and collective actions is like trying to clap with one hand. This book discusses how to harness the strengths of both private and public forms of social organization to find effective solutions to the complex challenges faced by interrelated industrial societies.

The impact of the environmental, or Green, movement is examined in various areas here. While most people think of pollution as the major spillover of modern life, the world has learned that pandemics can be deadly by-products of everyday personal and economic transactions. Green means not only a clean planet but also a world free of devastating infectious diseases like COVID-19.

Blueprint for a Green Planet

The chapters of this book cover a wide array of social, economic, and political questions that are examined from a Green vantage point. They include established areas such as pollution control, reduction of congestion, and global warming. But they also involve new frontiers such as Green chemistry, taxes, ethics, and finance.

We begin our journey with the cover of this book, which features a futuristic piece of architecture called "Copenhill," recently completed in Copenhagen, Denmark. This building combines interior offices with a trash-to-electricity plant, a hiking trail, and a chair-lift serving grassy beginner-to-expert ski slopes. Few people would imagine Copenhill as the icon of the Green age because of its association with garbage, but it shows how different components of our lifestyles—from production to working to skiing—can be innovatively integrated.

Copenhill is a monument to Green architecture, which is usefully described by one of its advocates, James Wines, as follows:

PREFACE 3

"Green architecture is a philosophy of architecture that advocates sustainable energy sources, the conservation of energy, the reuse and safety of building materials, and the siting of a building with consideration of its impact on the environment." *Sustainability* is the key here. In Green architecture it means minimizing the harmful environmental impact of buildings through efficient design and the use of renewable resources. More generally, in a theme running throughout this book, a sustainable society is one that operates to ensure that future generations can enjoy living standards at least as ample as those of today.

The built environment is the most durable tangible feature of human civilization. Aside from a few tools, the oldest human artifacts are buildings. These include Egyptian pyramids, Roman aqueducts, Indian pueblos, and Gothic cathedrals. Most structures last at least a half century, compared to a decade for cars or a couple of years for smartphones. Because buildings are so prominent and last so long, they are a useful illustration of the importance of the application of Green principles.

While the Spirit of Green is useful as a blueprint for structures and other tangible goods, it is even more influential as a conceptual framework for the design of institutions, laws, and ethics for an interconnected society. The analytical foundations of Western economies are built on the ideas of Adam Smith and the nineteenth-century liberals. Their approach emphasizes competitive markets free of monopoly and fraud. Economic insights of an earlier age remain a critical component of a prosperous society, but they must increasingly be balanced with the philosophy required to correct market and nonmarket flaws.

This book describes Green philosophy and its application to a globalized and technologically sophisticated society. In some cases, as in the building on the cover of this book or in new vehicles or chemicals, the approaches are literally or figuratively concrete.

However, some of the most important Green approaches are organizational or institutional or attitudinal. Changing our tax system, developing more accurate measures of national output, improving the incentives for green energy, using market instruments to

4 CHAPTER 1

reduce pollution, and improving the ethical norms for individuals and firms—these are ways of altering society that require no steel or concrete but rather changes in attitudes and laws.

Before turning to the different themes that follow, I must give a nod of thanks to the friends and colleagues who have taught me so much. I particularly salute my teachers from an earlier generation: Tjalling Koopmans, Paul Samuelson, Robert Solow, and James Tobin.

Additionally, I give thanks to contributors to the invisible college of environmental and economic thinking. They include George Akerlof, Jesse Ausubel, Lint Barrage, Scott Barrett, William Brainard, Nicholas Christakis, Maureen Cropper, Dan Esty, Alan Gerber, Ken Gillingham, Geoffrey Heal, Robert Keohane, Charles Kolstad, Matt Kotchen, Tom Lovejoy, Robert Mendelsohn, Nick Muller, Nebojsa Nakicenovic, John Reilly, Jeffrey Sachs, Cass Sunstein, David Swenson, Martin Weitzman, Zili Yang, and Gary Yohe.

The last salute goes to my brother Bob, an inspiration in life and the law, who devoted his talents to writing Green ideals into federal energy and environmental legislation.

All remaining errors and impractical flights of fancy belong to the author.

I write the final words of this book on January 21, 2021, the day after Joseph Biden became the 46th President of the United States and the world left the dark ages of the Trump years. The new administration, along with governments and citizens around the world, face challenges, Green and beyond, more daunting than at any time in half a century. But good will, sound science, and the rule of democratic institutions will serve as beacons to light our way over the coming years.

accounting, national, 83-94	architecture, 2-3, 55, 140
in Biosphere 2 and U.S. compared,	asbestos, 251
107–108, 108	asteroids, 104, 111, 113
climate change corrections in, 89-91,	atmosphere
90	as common property resource, 43
externalities in, 85-93, 316, 327n3	historical carbon dioxide concentra-
Green, 83-94, 316	tion in, 271, 272
gross domestic product in. See gross	atomic weapons, 113
domestic product	auctions
pollution corrections in, 86–87, 89,	of scarce public resources, 198-199,
92-93	202
subsoil assets in, 91-92, 327n6	of sulfur dioxide emissions permits,
Weitzman approach to, 85-87	196–197
acid rain, 163	automobiles, 197-198
activists in Green movement, 300-301	costs of air pollution from, 22
advanced combined cycle, 217	culture of, 38
agriculture, climate change affecting, 274	electric, 38
air pollution. See pollution	federal regulations on, 51-52, 143, 144
airport congestion, 25, 37, 198-199	and gasoline tax, 64, 198, 201, 203, 318
alcohol	and highway congestion. See highway
excluded in ethical investments, 255,	congestion
259	innovation of, 15, 305, 319
taxes on, 199, 200, 318	optimal pollution from, 47–49
Amazon.com, Inc., 182, 242, 260, 261	
anarcho-primitivism, 300	Barrett, Scott, 268
animals	Bator, Francis, 34
fairness to, 65–69	Becker, Gary, 312
rights of, 10, 66, 300	Becquerel, Edmond, 219, 220
Antarctica, 103, 109, 272, 272, 274	behavioral anomalies, 23, 129-140, 317-318
Anthoff, David, 309	discounting in, 75, 130-132, 317
anthropocentric approach, 9, 10–12, 300	first-cost bias in, 130, 132–133, 136,
apartheid, 258	138, 140, 317
Apple, Inc., 183, 260	inefficiencies in, 28, 129, 130
appliances, energy use of	life-cycle analysis in, 136–139, 317
discounting of, 131, 132	noneconomic preferences in, 135
informational deficiencies on, 31	regulatory approaches to, 139-140
principal-agent problem in, 55	solutions to, 136–140
regulatory approach to, 140	sources of, 133–135
appropriability of innovations, 207, 209,	Bell Telephone Labs, 220
210–211, <i>211</i>	Bento, Antonio, 64

The Better Angels of Our Nature: Why Violence	cost-benefit analysis of, 49, 144, 167,
Has Declined (Pinker), 45	206, 279–280, 283
A Better Planet: Forty Big Ideas for a	damage to others in, 22-23, 25, 206,
Sustainable Future (Esty), 15-16	278
bias	ethical issues in, 229, 234-235
in environmental policies, 150-152	European Trading System for, 166, 176
first-cost, 130, 132–133, 136, 138, 140, 317	free riding problem in, 167–168,
Biden administration, 320	281–284, 289–292
Big Smile Wind Farm, 237	and global temperature, 271
biocentrism, 10–12, 81, 300	goal of zero net emissions, 174–175,
Biosphere 1, Earth as, 104	215
Biosphere 2 project, 96, 104–108, 109	and gross domestic product, 155, 156,
Black Death, 114, <i>114</i>	286
Boskin, Michael, 312	incentives for reduction of, 278–279
Broome, John, 234, 235	international agreements on, 176,
Brown forces, 21, 179	284–285
and muck brown group, 297, 298,	in low-carbon economy, 214–223
298–299	mitigation of, 277–280
Brundtland Commission, 77	net national product corrected for,
building codes, 55, 140	89–91, <i>90</i>
Bush, G. H. W., 124, 189, 312	offset programs in, 234, 235, 237
Bush, G. W., 312	price of. <i>See</i> carbon price
Dusii, G. W., 312	
California	principal-agent problem in, 53
environmental regulations in, 52	and profits in electricity generation, 186, <i>187</i>
	restitution in, 234
public pension system in, 256, 257	*
CalPERS, 256, 257	and science of climate change, 270–271
Canada, 153, 289	272, 275, 276
cap-and-trade system, 284	social costs of, 75, 89–90, 144, 166–167,
on carbon dioxide emissions, 278, 311	229, 312
on sulfur dioxide emissions, 164, 166,	taxes on. See carbon taxes
202, 284	carbon footprint, 229, 234, 235–236, 237
capital	carbon intensity, 155, 285, 286, 288
corporate, 182, 182, 183, 190	carbon monoxide emissions, 47–49, 86, 143
intellectual, 106	carbon neutral, 234
natural, 106, 107	carbon offset programs, 234, 235, 237
noncorporate, 190	carbon price, 278–280, 293, 317
and profits, 182, 182, 183	at \$0 per ton, 186, 187, 217, 280
in sustainable systems, 106–107	at \$2 per ton, 167, 202, 280
tangible, 106	at \$40 per ton, 49, 144, 167, 196, 202,
taxes on, 190	216, 280, 290, 291, 307
capitalism, 174, 180	at \$100 per ton, 186, <i>187</i> , 196
capitalization, market, 183	at \$200 per ton, 216, 217, 222–223,
carbon capture and sequestration, 217, <i>218</i> ,	280
221–223	climate compact proposal on, 290–291
carbon cycle, 271	cost-benefit analysis of, 49, 144, 167,
carbon dioxide concentrations, historical,	279
271, 272	discounting in, 280
carbon dioxide emissions, 31	in electricity generation, 186, 187,
cap-and-trade policies on, 278, 311	216, 217
carbon capture and sequestration	global, 167, 319
technology in, 217, 218, 221-223	harmonized, 166, 279, 291
contrarian view on impact of, 275, 276,	in internalization of externality, 144,
277, 308	223, 229

international target for, 290	Clean Water Act (1972), 27
and net national product, 90, 90	climate change, 166-168, 267-293
regional, 167	abatement costs, 49, 216, 277-280
and social cost, 75, 89-90, 144, 166-167,	carbon dioxide emissions in, 270-271.
229, 312	See also carbon dioxide emissions
carbon taxes, 193, 198, 202, 203, 318	and carbon taxes, 112, 196, 202, 278,
in climate change mitigation, 112, 196,	310-312, 317
202, 278, 310-312, 317	as catastrophe, 111, 112
and decline in emissions, 166, 196	compact proposal on, 290-292, 293,
and Green New Deal, 176, 193	320
as market instrument, 25, 304, 310-312	contrarian views of, 274-277, 283,
rate per ton, 144, 196, 202. See also	292, 299, 308, 320
carbon price	cost-benefit analysis of, 49, 167, 206,
revenues from, 64, 196	279–280, 283
tax base in, 196	damage to others in, 25
and true income, 307, 308	deniers of, 274–277, 283, 298, 299,
Carlson, Chester, 46	308, 320
Carson, Rachel, 14–15, 274	economics of, 277–280
Carter, Jimmy, 189	effectiveness of policies on, 285-288
catastrophes, 76, 110–126	ethical issues in, 229, 231, 233-237
categories of, 111, 113	in federalist ladder, 50, 51, 56
climate change as, 111, 112	free-market solution to, 310-312
Green dimension of, 111–112	free riding problem in, 167–168, 169,
as low-probability, high-consequence	279, 281–284, 289–292
events, 110, 113, 317	fungibility principle in, 68
pandemics as, 111–112, 317	as global issue, 23, 56, 166, 167–168,
in tail events, 113, 317	176, 267–293, 319–320
cell phone networks, 37, 39	global warming in. See global warming
Centers for Disease Control and Prevention,	and Green investments, 254, 255, 256,
112, 120	258
COVID-19 testing strategy of, 123–124	Green New Deal policies on, 174, 175
federal budget for, 122	historical, 271, 272, 273
Central Park (New York City), 63	impacts of, 272–274, 311
chemistry, Green, 205–206	innovations needed for, 293
Chicago School approach, 180, 241, 297,	international agreements on, 25, 176,
308-310	269, 284–292, 319–320
China	net national product corrected for,
air pollution in, 163, 206, 284, 285	89–91, 90
carbon price in, 167	participation rate in policies on, 279,
coronavirus in, 110, 112, 115, 120, 121	280
decarbonization in, 286, 286, 287, 287	politics of, 166–168, 274
gross domestic product of, 84, 98	principal-agent problem in, 56
chlorofluorocarbons, 202, 249, 268	science of, 269–274
Christensen, Peter, 79	social costs in, 166–167
cigarette taxes, 190, 199, 200	and sustainability, 81
citizenship, active, 231	tipping points in, 274, 279
city and town level in federalist ladder, 23,	and transition to low-carbon econ-
51, <i>51</i>	omy, 214–223
Civilian Conservation Corps, 172	vulnerable areas in, 273–274
civilization	coal-fired power plants
historical development of, 96–101, 109 on other planets, sustainability of,	carbon capture and sequestration in, 218, 221
95–109	electricity costs in, 217, 218
Clean Air Act (1970), 51, 143, 164, 276–277	profits in, 186–187, 187

coal-fired power plants (continued)	corporate social responsibility, 24, 26, 181,
regulation of, 42-43	183, 239–253
social costs of, 92, 186, 206	ethics in, 24, 26, 181
sulfur-dioxide emissions from, 43, 165,	in externalities, 24, 245-246
165, 306	and invisible-hand principle, 181, 241,
Coase, Ronald, 145	244
Coase theorem, 145	in legal incompleteness, 243-245
cold, common, 116, <i>117</i>	measures of, 252
collective actions, 151	and ninth circle of irresponsibility,
in externalities, 146, 236, 237-238	188, 250-251, 299
in legal incompleteness, 243-244	product safety in, 24, 26, 251
in well-managed society, 2	and profits, 240-243, 246-250
combined cycle technology, 217, 218, 221	and public relations spending, 252
command-and-control regulations, 143, 144,	and shareholder value, 183, 247, 247
176, 317	in unprofitable activities, 248–250
common-property resources, 13, 25, 43–44	corporations
conversion to private property, 44–45	autonomy of, 242
misuse of, 45	executive compensation in, 188
commons, tragedy of, 12–13	Green, 24, 239–253
communication plan in pandemics, 124–126	and legal incompleteness, 243–245
compensation	as monopolies, 31
of corporate executives, 188	muck brown activities of, 298, 299
for harm to others, 234	ninth circle of irresponsibility, 188,
competition in markets, 30–31	250–251, 299
congestion, 2	principal-agent problem in, 53–54
of airports, 25, 37, 198–199	profits of, 179–188, 240–243
ethics in, 230–231	public relations spending of, 252
external costs in, 194	shareholder value in, 183–184, 186,
of highways, 25, 37, 194–195, 230–231,	240, 247, 247
310, 315	short-term view in, 188, 243, 252
as local issue, 15, 55	social responsibility of. See corporate
as market failure, 176	- · · · · · · · - · · · · · · · · · · ·
	social responsibility societal view of, 240
in networks, 37, 39	
congestion pricing, 39, 194–195	stakeholder interests in, 240, 241, 243
in airport congestion, 25, 198–199	246, 248, 249
in highway congestion, 25, 194–195,	value maximization in, 241, 243
205, 310, 315	cost-benefit analysis
in networks, 39	of carbon price, 49, 144, 167, 279
conservation projects in New Deal era,	of climate change, 49, 167, 206,
172	279–280, 283
consumption	of corporate social responsibility,
carbon price affecting, 278	248–249
of private goods, 35	on distributional impact of environ-
substitution in, 80, 81, 316	mental policies, 63–65
sustainable, 8, 78, 88, 316	of efficient pollution, 142–143 on future impact of current decisions
contrarian views	75
of climate change, 274–277, 283, 292,	
299, 308, 320	limitations of, 309
of Green skeptics, 297–313	marginal costs and benefits in. See
Copenhill, 2	marginal costs and benefits
copyright case, animal rights in, 66	of overfishing, 44
coronavirus, 1, 22, 110, 115. See also COVID-19	of regulations, 43, 47–49, 94, 142, 144
pandemic	150–151, 165–166, 313
corporate capital, 182, <i>182</i> , 183, 190	social costs in, 22, 144

costs	death rate in diseases, 114, 116-118, 117
in Biosphere 2 project, 105, 107	death tax, 189
in carbon capture and sequestration,	decarbonization, 286-288
218, 221–223	electricity generation technologies
in congestion, 194	in, 219
discounting of, 75, 130-132, 138	of global economy, 286, 286
in electricity generation, 186-187, 187,	trend in, 287
216–218, <i>218</i>	decision-making
in innovations, 319	behavioral anomalies in, 129-140,
internalization of, 23, 144	317-318
life-cycle analysis of, 136–139, 137	current, impact on future generations
and net national product, 92-93	74, 75
and profits, 181, 186, <i>187</i>	failures in, 134
of public goods, 35	first-cost bias in, 130, 132-133, 136,
of regulations, 43, 47-49, 317	138, 140, 317
social. See social costs	in politics, 147–148
in solar power, 218, 220, 220	principal-agent problem in, 54-56,
in space colonization, 103-104	135
in Weitzman accounting approach,	profit incentive affecting, 188
86-87	short term focus in, 188, 243, 252, 318
COVID-19 pandemic, 1, 46, 110-126, 299	deep ecology, 11, 300
assessment of policies in, 120-126	deep Green movement, 297, 298, 299-301
asymptomatic spread of, 119	defense, national
communication on, 124-126	Friedman on, 301, 302
death rate in, 114, 116-118, 117, 119	international efforts in, 282
economic impact of, 78-79, 326n7	as public good, 35, 36
effective reproduction rate of virus in,	degradation, forces of, 21, 23
117–118	DeLong, Brad, 97
epidemiology of, 111–112	democracy
federal budget for, 122	and environmental quality, 153–169
as global externality, 268	equality of opportunity in, 60
global number of cases, 115, 115–116	measures of, 153-154
government response to, 112, 120,	particulate matter concentrations in,
122–126	157, 158
infectiousness in, 116-118, 117, 119	principal-agent problem in, 56
in New York City, 119, 123	depreciation
origin of, 110, 115, 121	in Biosphere 2 project, 107, 108
politics affecting response to, 125-126	and net national product, 84, 108
social distancing in, 119	design of new products, Green, 46, 204,
testing for, 123–124	205–209
COVID-19 vaccines, 126	benign by design in, 206
nonrivalry of, 207–208	of Sea-Nine, 204, 206
as positive externality, 46	development
rapid development of, 121	appropriability of, 211
reducing infectiousness with, 118	social and private returns on, 212, 213,
social and private return in, 204–205	214
supply and distribution of, 110	sustainability of, 77, 82
creative destruction of innovations, 39, 40	DICE model, 287, 335n1
credit-card anomaly, 134	dioxin, 298
Cuyahoga River, 27	direct regulatory controls, 143, 144
	discounting, 75, 130-132, 138, 317
Dante, 250	in carbon prices, 280
Davis, Steven, 40	hyperbolic, 132, 133, 138
DDT, 14, 274	and shareholder value, 184

distributional impact of environmental	of taxes, 190-191
policies, 63–65	in well-managed society, 18, 28, 30, 315
in regressive taxes, 64, 202–203	effort, and economic inequality, 59
distributional politics, 157-168	Einstein, Albert, 219
in sulfur dioxide emissions, 162-166	Eisenhower, Dwight, 68
in tariffs, 159–162	electric cars, 38
distribution of goods and services, 28	electricity generation
fairness in, 28, 29, 57, 61	carbon capture and sequestration in,
inefficiency in, 29, 30	218, 221–223
double externality of innovation, 206-212,	carbon price in, 186, 187, 216, 217
220, 223, 319	from coal-fired plants. See coal-fired
Downs, George W., 55–56	power plants
DuPont, 249	in low-carbon economy, 214-223
dust bowl era, 172	profits in, 186–187, 187
dynamic integrated model of climate and	regulations on, 42-43, 164-166
economy (DICE), 287, 335n1	from renewable sources, 52, 175, 217, 218
economic growth rate, 78-79	social costs in, 92, 186, 206
consequences of, 314	sulfur dioxide emissions in, 42-43,
COVID-19 affecting, 78-79, 326n7	164–166, 306
environmental policies affecting,	emissions permits on sulfur dioxide, 25, 64,
93-94	164, 165, 196–197, 202, 309
historical, 97–101	employment
projections on, 79, 326n7	in Green New Deal, 174
threats to, 79	in manufacturing, loss of, 39-40, 245
economic inequality, 58, 58-61	in New Deal, 172
growth in, 19	pecuniary externalities affecting,
measures of, 58–59	39–40, 245
New Deal policies on, 172	endangered species, 66
sources of, 59–60	Energy Information Administration, 175, 216
economics	Energy Modeling Forum, 216
and Biosphere 2 viability, 106, 107	energy use
of climate change, 277–280	behavioral anomalies affecting, 129,
efficiency in, 27–40, 315	130, 133, 134–135, 138
Green, 73–82	informational deficiencies on, 31
and Green accounting, 83–94	life-cycle analysis of, 137, 139
Pigou on, 32–34	principal-agent problem in, 54–55, 135
of profits, 180–181	regulatory approaches to, 140
resource allocation in, 30	and taxes, 139
sustainability in, 8	environmental, social, and corporate gover-
The Economics of Welfare (Pigou), 32	nance (ESG), and social responsibility
economy	of corporations, 239–253 in investments, 254–263
Green, 179–188 low-carbon, 214–223. <i>See also</i>	environmental economics, 28
low-carbon economy effective reproductive rate, 117–118	efficiency in, 27–40 Pigou on, 32–34
efficiency, 27–40, 315	resource allocation in, 30
behavioral anomalies affecting, 28,	sustainability in, 8
129, 130	environmentalism
and fairness, 29	free-market, 297, 298, 301
and government regulations, 144	history of, 7–16
and invisible-hand principle, 18,	environmental justice, 20, 62–63
30–31, 48, 135, 227	Environmental Protection Agency, 52, 65,
and pollution, 28, 142–143	112, 204, 298

equality	corporate social responsibility in, 24,
and economic inequality, 19, 58,	245-246
58-61, 172	double externality of innovation,
as efficient outcome, 29, 30	206-212, 220, 223, 319
and fairness, 57-60	efficient management of, 142-143
Green New Deal on, 176	ethics in, 228-238
intergenerational, 77–78	federalism in, 22-23, 24, 50-56
of opportunity, 60, 63	free-market solution to, 44
in well-managed society, 19	global, 56, 167-168, 267-269. See also
ESG (environmental, social, and corporate	global issues
governance), and social responsibility	government role in. See government
of corporations, 239–253	role
in investments, 254–263	impersonal, 142-143, 145, 146
Esty, Dan, 15-16	infections as, 2, 18, 22, 24-25, 316-317
ethics, 3, 19, 28, 225–238	internalization of. See internalization
in actions, 227-228	of externality
balance between welfare of self and	as market failure, 31, 41, 144, 176, 241,
others in, 229, 230, 232, 232-233	315
in climate change, 229, 231, 233-237	in national accounting, 85-93, 316,
and corporate social responsibility,	327n3
24, 26, 181	network, 36-39
in externalities, 228-238	as ownership problems, 43-44
and fairness, 61	pecuniary, 39-40, 242, 245-246
in federalism, 22, 50, 226, 228	personal, 141–142
informational problems in, 236-237,	Pigou on, 32–34
238	pollution as, 2, 18, 21–23, 25, 28, 31.
in investments, 254-263	See also pollution
in invisible-hand principle, 181,	positive. See positive externalities or
227-228	spillovers
no-regrets policy in, 231-233, 232,	pricing of, 22, 86, 212-213
236, 238	in principal-agent conflicts, 52-56
personal, 226	private approaches to, 144-146
and profits, 179, 181	and profits, 187
in well-managed society, 226, 228-229,	property rights in, 44-45
237	regulation of, 41-49, 143-144, 315.
Europe	See also regulations
carbon dioxide emissions in, 166, 167,	societal, 142-143
176, 234, 309	technological, 39, 40, 245-246
carbon price in, 166, 167	unregulated, 229-231
COVID-19 pandemic in, 115	in well-managed society, 18-19, 20
fuel taxes in, 198	ExxonMobil, 251, 255, 260, 261, 262-263
European Trading System, 166, 176	
exo-civilizations, 95-109	Facebook, 37, 241
expense ratio in Green investments, 261-262,	corporate responsibility of, 249, 251
263	in investment portfolios, 260, 261
external costs in congestion, 194	profits of, 180, 182
externalities or spillovers, 2, 18-26, 31, 74	face mask use in COVID-19 pandemic, 125,
from automobiles, 197-198	126
balance between welfare of self and	fairness, 57–69
others in, 229, 230, 232, 232-233	to animals, 65–68
climate change as, 25. See also climate	and efficiency, 29
change	in environmental justice, 62-63
collective actions in, 146, 236,	in environmental policies, 63-65
237-238	generational, 61–62

fairness (continued)	free riding problem, 167–168, 169, 279,
in goods and services, 28, 29, 57, 61	281-284, 289-292
Green New Deal on, 176	generational, 283
and inequality, 57–60	Friedman, Milton, 297, 301-304
in markets, 60-61	on corporate profits, 180, 241, 242,
family	247
in federalist ladder, 22, 51, 51	on corporate responsibility, 240-242
personal spillovers in, 141–142	on free markets, 180, 241, 301–303
principal-agent problem in, 54–55	on pollution charges, 304, 311-312
federalism, 22–23	Friedman, Rose, 304
ethics in, 22, 50, 226, 228	Friedman, Tom, 173
Green, 22-23, 50-56, 146, 226	fuel taxes, 64, 198, 201, 203, 318
ladder in, 22–23, 50–51, <i>51</i>	FundX Sustainable Impact, 263
and principal-agent problem, 52–56	fungibility, 68
Feldstein, Martin, 312	future costs
finance, Green, 254–263	discounting of, 75, 130–132, 138
financial crisis (2008–2009), 173	life-cycle analysis of, 136–139
firearms	future generations
excluded in ethical investments, 254,	climate change affecting, 68, 283
255, 259	
•	current decisions affecting, 74, 75
taxes on, 199, 200, 318	fairness to, 61–62
first-cost bias, 130, 132–133, 136, 138, 140, 317	protection of natural sites for, 9, 44
fish distribution, fairness in, 28, 29, 57	sustainability for, 3, 75–82, 88
fishing, and overfishing as externality, 43–44	1.1:
food	gambling
in Biosphere 2 project, 105, 106	exclusion from ethical investments, 259
fairness issues related to, 28, 29, 57,	taxes on, 199, 200, 318
61, 68–69	game theory, 283, 291
Forbes, Steve, 180	gas, natural, 217, <i>218</i> , 221
forests, 8–9	reserves in subsoil assets, 91–92
and carbon footprint, 235–236	gas tax, 64, 198, 201, 203, 318
market values of, 10, 11	generational fairness, 61-62
sustainable yield from, 8, 76, 87–88	geographic location
fossil fuels, 53, 175, 215	and inefficiency in regulations, 144
carbon dioxide emissions from,	and inequality, 59–60
270–271, 278	and pollution exposure, 65
and climate change, 206, 270	global issues, 267-269, 319-320
coal. See coal-fired power plants	in climate change, 23, 56, 166, 167–168,
excluded in ethical investments, 259	176, 267–293, 319–320
sulfur dioxide emissions from, 162	federalist ladder in, 23, 50, 51, 56
fouling of ship hulls, 204	free riding problem in, 167-168, 169,
Francis, Pope, 180	279, 281–284
Frankfurter, Felix, 172	institutions and mechanisms in control
free markets, 301–307, 313	of, 23, 176, 268
and capitalism, 174, 180	international agreements on. See inter-
carbon taxes in, 310–312	national agreements
Friedman on, 180, 241, 297, 301-303	in offshoring production, 39
and Green New Deal, 174	in pandemics, 20–21, 23, 56, 268
moral case for, 304–307	in pecuniary externalities, 39, 40
profits in, 180	principal-agent problem in, 56
and property rights, 44	public goods in, 268, 310, 319–320
and public goods, 36, 297, 303–304	in trade, 162, 268, 290
as solution to externalities, 44	globalization, 20–21, 162
in spectrum of Green, 298	global positioning system (GPS), 36
spectram or dreen, 270	Broom positioning system (dr 5), 50

global public goods, 268, 310, 319–320	Great Lakes, 27
global warming, 271–272, 273	Great London Smog (1952), 148
agriculture disruption from, 274	Green architecture, 2-3, 140
contrarian views on, 276, 277	Green chemistry, 205-206
and decarbonization rate, 287-288,	Green corporations, 24, 239–253
288	Green design of new products, 46, 205–209
economic impact of, 174	Green economics, 73–82
historical trends in, 271, 272, 273	Green economy, 179–188
Paris Agreement on, 285	The Green Economy (Jacobs), 74, 75
predicted degrees of, 68, 271, 274, 280,	Green efficiency, 27–40. See also efficiency
287–288, 288	Green ethics, 26, 225–238. See also ethics
target for degrees of, 91, 167, 175, 215,	Green fairness, 57–69. <i>See also</i> fairness
216, 279, 285, 288	Green federalism, 22–23, 50–56, 146, 226
Goldilocks principle, 142, 165, 307–308,	Green finance, 254–263
308, 309	Green history, 7–16
goods and services	Carson in, 14–15, 274
efficiency in, 28, 29	Esty in, 15–16
fairness in, 28, 29, 57, 61	Hardin in, 12–13
federal spending on, 171–172	human-centric and biocentric
global annual output of, 96	approaches in, 9–12
in Green output, 85	Muir in, 9, 12
in gross domestic product, 83–84	Pigou in, 32–34, 48, 73, 324n3
in net national product, 85	Pinchot in, 7–9, 10, 11, 12
nonexcludability of, 35, 207, 208, 303	greenhouse gas emissions, 43, 89, 166, 270
nonrivalry of, 35, 207–208, 303	carbon dioxide. See carbon dioxide
private. See private goods	emissions
profits in production of, 181	contrarian view on impact of, 277
public. See public goods	cost of, 213
pure economic, 81	goal of zero net emissions, 174–175,
=	193, 215
Google, 180, 182, 241 government role	Green New Deal policies on, 174–175,
9	193
and corporate responsibilities, 24	
ethics in, 226, 228–229 failures in, 23–24, 308–310	Paris Agreement on, 285 price of, 278
	±
in federalism, 22–23, 50–56 Friedman on, 301–303	Green innovations, 204–224. See also innovations
in Green New Deal, 173–176	Green investments, 254–263. See also
in Green politics, 141–176 institutional inertia in, 148	investments
in low-carbon innovation, 219–223	Greenland, 274 Green movement
and market role, 315	
in New Deal, 170–172	activists in, 300–301
in pandemic response, 2, 24–25, 112,	deep Green, 297, 298, 299–301 history of, 7–16
120, 122–126	norms in, 225
· · · · · · · · · · · · · · · · · · ·	
principal-agent problem in, 55–56 in public goods, 36	skeptics of, 297–313 Green national accounting, 83–94, 316
in regulations, 41–49, 143–144. See also	
regulations and laws	Green national output, 83–94, 316 carbon dioxide emissions correction
in well-managed society, 19, 23, 168,	
228–229	in, 90–91 subsoil assets in, 91–92
GPS (global positioning system), 36	
Grand Canyon, 302, 303	Green net national product, 86, 89–93 Green New Deal, 170–176
Grand Canyon, 302, 303 Great Depression, 161, 170–172	
The Greatest Hoax (Inhofe), 275	A Green New Deal (pamphlet), 173 Greenpeace, 298, 300, 301
1116 Greatest Floak (HHOIC), 2/3	Greenpeace, 270, 500, 501

Green politics, 141–176. See also politics	Holmes, Oliver Wendell, 189
Green skeptics, 297–313	household
Green society, 17–26, 68	in federalist ladder, 22, 51, 51
role of technologies in, 33	personal spillovers in, 141–142
as well-managed society, 17–20.	principal-agent problem in, 54–55
See also well-managed society	Hull, Cordell, 161
Green taxes, 179, 189–203, 318. See also taxes	human-centric approach, 9, 10–12, 300
gross domestic product, 83-85, 316	hyperbolic discounting, 132, 133, 138
of Biosphere 2 and U.S. compared,	
108, 108	ice ages, 271
and carbon dioxide emissions, 155,	ice sheets
156, 286	melting of, 274
and carbon intensity, 155, 286	reconstruction of historical tempera-
and defense expenditures, 282	tures from, 272, 272
and living standard, 98	immunity, population (herd), 118
and measured income, 307	impersonal externalities or spillovers, 142-143
per capita, 84, 155, <i>156</i>	145, 146
and projections of economic growth rate, 79	inappropriability, 207, 208, 209, 210–211 incentives
gross national product, 83	of climate change deniers, 298, 299
growth	in climate change mitigation, 278-279
economic. See economic growth rate	in Green innovation, 212-214, 222-223,
net national product corrected for,	224, 279, 319
89, 91	in principal-agent problem, 53-54,
in population, 13, 15, 20-21, 314	55, 56
sustainable, 75, 76–77	income
	and carbon tax, 307, 308
Hahn, Robert, 309	environmental policies affecting,
Hamilton, Alexander, 36	63-65, 307
Hardin, Garrett, 12-13	inequality in, 19, 58, 58-61, 172
harmonized carbon price, 166, 279, 291	measured, 307
Harper, William, 275	and net national product, 84
Hassett, Kevin, 312	and particulate matter output, 156, 156
health effects of pollution, 42, 43, 150, 163,	and pollution exposure, 65
166, 206	and regressive taxes, 202-203
Hemingway, Ernest, 57	true, 307, 308
herd immunity, 118	income taxes, 161, 190-191
highway congestion	India, 163, 167, 206, 274
as common-resource problem, 25	individualistic ranking, 28, 29, 78
ethics in, 230-231	Industrial Revolution, 97, 98, 100
as network externality, 37	inefficiencies, 29, 30, 31
pricing system in, 25, 194-195, 205,	in regulations, 144
310, 315	inequality, 57–60
historical aspects	economic, 19, 58, 58–61, 172
of global temperature, 271, 272, 273	effort and luck as factors in, 59-60
of Green movement, 7–16	Green New Deal on, 176
of human civilizations, 97-101, 109	and Green taxes, 202-203
of international climate agreements,	measures of, 58-59
284-285	sources of, 59-60
of pandemics, 114, 114, 328n1	infectious diseases, 2, 18, 22, 24-25, 316-317
of sulfur dioxide emissions, 306,	pandemics in. See pandemics
306-307	infectiousness of diseases, 116–118, 117, 119
of tariffs, 160, 160, 161	inflation rate, 138
HIV/AIDS pandemic, 114, 114	informational problems, 28, 31

behavioral anomalies in, 134, 136	in networks, 39
corporate responsibility in, 250–251, 253	regulations in, 23, 145, 213, 228, 229
in Green ethics, 236-237, 238	social costs in, 23, 144
infrastructure	taxes in, 144, 192, 318
in Green New Deal, 174	international agreements, 23, 25, 176,
as public good, 36	268-269, 284-292
relief fee, 199	climate compact proposal, 290-292
Inhofe, James, 275	effectiveness of, 285-288, 292
innovations, 28, 204-224	history of, 284-285
appropriability of, 207, 209, 210-211,	obstacles to, 292
211	International Space Station, 103, 109
benign by design, 206	intrinsic value of nonhuman life, 11, 11–12
COVID-19 vaccine in, 204-205	investments, 254-263
creative destruction of, 39, 40	discounting in, 75, 130-132, 138
double externality of, 206-212, 220,	ESG criteria in, 254
223, 319	exclusion criteria for, 255, 258, 261,
earnings for inventors of, 46, 205,	263
208-209	expense ratio in, 262, 263
in free markets, 304-306, 312	first-cost bias in, 132-133, 138, 140
government policies promoting,	for future generations impacted by
219-223	climate change, 68, 75
Green design of, 204, 205-209	and Green national output, 85
incentives for, 212-214, 222-223, 224,	Green portfolios in, 260, 260–263
279, 319	and gross domestic product, 84
institutional, 34	in infrastructure, 174
investments in, 210, 211, 211, 212, 213, 214, 220	in innovations, 210, 211, 211, 212, 213, 214, 220
for low-carbon economy, 214-223,	life-cycle analysis of, 136-139
293, 319	in low-carbon technology, 279
market-oriented, 209	in new knowledge, 33, 107, 108
nonexcludability of, 208	no-regrets policy in, 263
nonrivalry of, 207-208	payback period in, 137–138
as positive externality, 46, 207	in pollution reduction, 131
profits in, 180, 209-210	rate of return in. See rate of return
social and private returns in, 46, 205,	reducing future costs, 131
206, 208–214, 220, 223, 319	risk in, 262, 334-335n7
spectrum of, 210–211, <i>211</i>	social goals of, 257, 258
for sulfur dioxide emission reduction, 205	socially responsible, 239, 240, 254–263
institutions	and sustainable output, 88
behavioral anomalies in, 134-135	and taxes, 190
in democracy, 153	Yale policy on, 257–259
inertia of, 148	invisible-hand principle
innovations of, 34	and corporate social responsibility,
insulation, investment in, 133, 136–139, <i>137</i>	181, 241, 244
integrated gasification combined cycle with	efficiency in, 18, 30–31, 48, 135, 227
carbon dioxide capture, 221	ethics in, 181, 227-228
intellectual property, 46, 107, 108, 108	market failures in, 30, 31, 241, 244
interest rates, and credit-card anomaly, 134	profits in, 181
internalization of externality	Smith on, 12, 18, 30–31, 48, 227
carbon price in, 144, 223, 229	in well-managed society, 18, 181, 227
in efficient pollution theory, 142	irresponsibility, corporate, ninth circle of,
liability laws in, 145	188, 250-251, 299

Jacobs, Michael, 74, 75-76, 79, 81	lobsters, 67
Jenner, Edward, 207	location
Jensen, Michael, 241, 243	and inefficiency in regulations, 144
jobs. See employment	and inequality, 59–60
Jobs, Steve, 46	and pollution exposure, 65
Johns Manville, 251	Loewenstein, George, 132
justice, 23	London, 148, 195
duty of, 234	low-carbon economy
environmental, 20, 62–63	and decarbonization rate, 286–288
social, in investment decisions, 257	incentives for transition to, 278–279
	innovation for, 214-223, 293, 319
Kantian peace, 154	luck, 59-60, 62
Kennedy, John F., 14	•
Keynes, J. M., 16, 171	Maddison, Angus, 97
KLD Social Ratings Database, 250	Madison, James, 159–160, 161
knowledge	Mankiw, Greg, 312
and informational problems. See infor-	manufacturing
mational problems	export of machine technology in,
new. See new knowledge	208
on pandemics, 121	loss of jobs in, 39–40, 245
as public good, 46	production innovations in, 210–211
Koch brothers, 252, 298	tariffs in, 159–160
Kuznets environmental curve, 155–156, <i>156</i>	marginal costs and benefits, 47–49, 325n1
Kyoto Protocol (1997), 280, 284–285, 287,	in climate policies, 279, 280
289, 290	and Goldilocks principle, 142, 165
207, 270	in pollution abatement, 48, 48–49, 94,
Laffer, Arthur, 193, 312	142, 144, 165–166, 279
Laffer curve, 193, 312	in regulations, 47, 94, 142, 144,
Laibson, David, 132	165–166
Landes, William, 243	market capitalization, 183
landlord-tenant problem, 52–56	market churn, 39
land taxes, 191	market economy
land use	ideal, 181
and environmental justice, 63	role of profits in, 179–188
regulations on, 52	market failures, 31, 74, 241, 315
laws. See regulations and laws	externalities in, 31, 41, 144, 176, 241,
legal incompleteness, 243–245	315
lethality	in invisible-hand principle, 30, 31,
•	241, 244
of air pollution, 163, 166 of diseases, <i>114</i> , 116–118, <i>117</i> , 119, 207	misallocation of resources in, 30
of war, 154, <i>154</i>	markets
level correction of net national product, 89	
liability laws, 145, 146	balance with government role, 315 and carbon taxes, 25, 304, 310–312
life-cycle analysis, 136–139, <i>137</i> , 317	
lighthouses, 33, 35–36, 303	competitive, 30–31
lighting	and efficiency, 29, 30, 315
0 0	ethical behavior in, 227–228, 237
and productivity, 99–101, 100, 101 technology developments in, 99, 100,	failures of, 30, 31
101, 305	fairness in, 60–61 free markets. <i>See</i> free markets
living standards	Hardin on, 12–13
historical development of, 97–98, 98	in human-centered approach, 10
market forces in, 304–306	ideal, 181
measures of, 78, 79, 98, 327n9	invisible-hand principle on. See
sustainability of, 78, 103, 109, 316	invisible-hand principle

network, 37-38	level and growth corrections, 89, 91
and nonmarket activities, 10, 11	subsoil assets in, 91–92, 327n6
and pecuniary externalities, 40, 245	and sustainable output, 88
for private goods, 18, 36	network externalities, 36-39
and resource allocation, 30	New Deal, 170-172
Smith on, 12, 18, 30-31	Green, 170-176
value of forest products in, 10, 11	new knowledge, 332n4
in well-managed society, 18, 19-20,	in Biosphere 2 project, 107, 108, 108
227-228, 237	investment in, 33, 107, 108
Markey, Edward, 174	as positive externality, 19, 33, 45-46,
Mars, human colonization of, 102-104, 109	207
Mars One program, 103	New York City
measles, 117, 118, 126	Central Park in, 63
median voter, political decisions of, 147, 152	congestion pricing in, 194, 195
Mehan, Tracy, 16	COVID-19 pandemic in, 119, 123
Mendelsohn, Robert, 92, 327n7	ninth circle of corporate irresponsibility,
Metcalf, Gilbert, 203	188, 250–251, 299
Microsoft, 38, 182, 260, 261	nitrogen oxides, 197
minerals in subsoil assets, 91	Nobel Prize in Economics, 46, 194, 332n4
Mississippi, 52	nonexcludability of public goods, 35, 207,
monopolies, 31	208, 303
monsoonal systems in climate change, 272,	nonmarket activities, 74, 85
274	nonrivalry of public goods, 35, 207-208, 303
Morton, Adam, 102, 103	Nordhaus, William, 92, 327n7
muck brown approach, 297, 298, 298–299	no-regrets policy, 231–233, 236, 238, 318
Muir, John, 9, 12	in corporate responsibility, 248, 252
Muller, Nicholas, 92, 165, 187, 327n7	in Green finance, 263
Musk, Elon, 102, 103	norms
/	in federalism, 22, 226
Naruto (monkey), 66	in Green movement, 225
national defense	North Atlantic Treaty Organization, 282
Friedman on, 301, 302	Nozick, Robert, 257
international efforts in, 282	nuclear power, 217, 218, 259
as public good, 35, 36	Ob decisionation 140, 207, 220
national output, 79, 83–94, 316	Obama administration, 149, 285, 320
measures of, 83–85 pollution as factor in, 86	Ocasio-Cortez, Alexandria, 174
sustainable, 87–88	oceans
national parks, 9, 44, 302–304	carbon dioxide storage in, 222 overfishing of, 43–44
natural gas, 217, 218, 221	offset programs in carbon dioxide emissions,
reserves in subsoil assets, 91–92	234, 235, 237
negative externalities or spillovers, 18–19, 20.	
See also externalities or spillovers	oil reserves in subsoil assets, 91–92
negotiations	Olmstead, Fredrick Law, 63
in private approach to externalities,	Olson, Mancur, 151, 158
145–146	opportunity, equality in, 60, 63
on tariffs, 161–162	optimal pollution, 46–49, 48, 325n2
neighborhood effects, 302	organotin antifoulants, 204
net national product, 84–94	overfishing, 43–44
air pollution corrections, 92–93	oxygen levels in Biosphere 2 project, 105
in Biosphere 2 and U.S. compared,	ozone, 75, 163
107, 108, <i>108</i>	air quality standard for, 149, <i>149</i>
climate change corrections, 89–91, 90	depletion of, 56, 200, 202, 246, 249,
Green, 86, 89–93	267, 268

pandemics, 1-2, 24-25, 110-126, 316-317	of climate change, 166–168, 274
assessment of policies in, 120-126	decision-making in, 147–148
as Brown force, 21	in democracy, 153–154
as catastrophe, 111-112, 317	distributional, 157–168
communication on, 124-126	and Green New Deal, 170-176
COVID-19. See COVID-19 pandemic	Green theory in, 141–152
economic impact of, 21, 78–79, 82	and muck brown activities, 298–299
epidemiology of, 111–112, 328n1	polarization in, 148
ethical dilemmas in, 82	in practice, 153–169
future impact of, 60, 79	and public health in COVID-19 pan-
as global issue, 20–21, 23, 56, 268	demic, 125–126
government responses to, 2, 24–25,	and stability of environmental policies,
112, 120, 122–126	148–150
history of, 114, 114, 328n1	of sulfur dioxide emissions, 162–166
infectiousness in, 116–118, <i>117</i> , 119	of tariffs, 151, 159–162
lethality of, 114, 114, 116–118, 117, 119	pollution, 2, 18
quarantine in, 25	and acid rain, 163
rate of reproduction in, 116, 117–118	air quality standards on, 149, <i>149</i>
science and technology in, 121	annual expenditures on reduction
Pareto rule, 28–29	of, 65
Paris Accord (2015), 175, 280, 285, 287, 289,	in behavioral anomalies, 130
290	carbon dioxide in. See carbon dioxide
particulate matter concentrations, 155–157	emissions
in democracies, 157, 158	from coal-fired power plants. See coal-
rate of change in, 164, 165	fired power plants
and sulfur politics, 162, 163, 164	corporate responsibility in, 24, 246,
payback period for investments, 137–138	247–248. <i>See also</i> corporate social
pecuniary externalities, 39–40, 242, 245–246	responsibility
pension system investments, 256, 257	cost-benefit analysis of. See cost-
personal decisions, principal-agent problem	benefit analysis
in, 54	costs of, 86–87
personal ethics, 226	damage to others in, 22–23, 25, 187,
personal spillovers, 141–142	206, 278
pesticides, 14, 27, 31, 87, 274	definition of pollutant in, 276–277
pharmaceutical companies, 24, 251	distributional impact of policies on,
Philip Morris, 251	64–65
photovoltaic solar, 218, 219–220, 220	and efficiency, 28, 142–143
Pigou, Alfred, 32–34, 48, 73, 324n3	federalism in, 22–23, 50–56
pilot plants	and Green output, 83
appropriability of, 211	Green taxes on, 191–193
social and private returns in, 212, 213,	health effects of, 42, 43, 150, 163, 166,
214	206
Pinchot, Gifford, 7–9, 10, 11, 12	internalization in, 142, 144, 223, 229
Pinker, Steven, 45	international agreements on, 25,
plagues, 2, 20–21, 25, 114, 114. See also	284–292
pandemics	and investment decisions, 258–259
polarization theory, 148	investments in control of, 131
policy-making. See regulations and laws	Kuznets environmental curve on,
polio, 117, 118	155–156, <i>156</i>
politics, 141–176	Laffer curve on, 193
as aggregation of individual prefer-	marginal costs and benefits in, 48,
ences, 146–148, <i>147</i>	48–49, 94, 142, 144, 165–166, 279
and bias in environmental policies,	market approaches to, 25, 34, 144, 317
150-152	in market failures, 74

national accounting corrected for,	productivity
86-87, 89, 92-93	historical growth of, 98
optimal, 46-49, 191, 325n2	lighting affecting, 99-101, 100, 101
particulate matter in, 155–157, 158,	measures of, 98–99
162, 163, 164	product safety, corporate responsibility for,
politics of, 162–166	24, 26, 251
principal-agent problem in, 53	profits, 179–188
and profits in electricity generation, 186–187, 187	in carbon capture and sequestration, 222–223
property rights in, 145	as compass of market economy,
as public nuisance, 25	184–187, <i>185</i>
rate of change in, 164–165, <i>165</i>	and corporate social responsibility,
regulations on. See regulations	240–243, 246–250
social costs of. See social costs	definition of, 181
stability of policies on, 148–149	different views of, 180
sulfur dioxide in. <i>See</i> sulfur dioxide	economics of, 180–181
emissions	enlightened maximization of, 246–247
types of Green mechanisms in, 24, 25	Friedman on, 180, 240–242
as visible externality, 21–22	in innovations, 180, 209–210
of water, 22, 27, 31, 51, 268	
	in muck brown approach, 298
population growth, 13, 15, 20–21, 314	as shareholder value, 183–184, 186
population immunity, 118	in socially responsible investments,
portfolios in Green investments, 260,	256
260–263	and social value, 186, 187
diversified, 261–262	trends in, 181–183, <i>182</i> , <i>183</i>
exclusion criteria for, 255, 258, 261, 263	progressive nature of environmental policies,
expense ratio in, 261–262, 263	63-64, 65
returns on, 262, 262, 334–335n7	property rights, 23, 44, 144–146
risk in, 262, 334-335n7	and common-property resources,
positive externalities or spillovers, 18-19, 33,	44-45
45-46	on intellectual property, 46
in Biosphere 2 project, 107	in well-managed society, 18, 145
innovations in, 46, 207	property taxes, 191
in networks, 37	public goods, 18, 20, 207
new knowledge in, 19, 33, 45-46, 207	auctions of, 198-199
Posner, Richard, 243	compared to private goods, 34-35
Presidential Green Chemistry Challenge	global, 268, 310, 319-320
Award, 204	knowledge as, 46
price, 22, 86, 212–213	lighthouses as, 35–36, 303
carbon. See carbon price	national defense as, 35, 36
congestion pricing. See congestion	national parks as, 44.303–304
pricing	nonexcludability of, 35, 207, 208,
of public goods, 75	303
of sulfur dioxide emissions, 166	nonrivalry of, 35, 207–208, 303
taxes affecting, 190	privatization of, 44
	_
principal-agent problem, 52–56, 135 private goods, 34–35	scarcity of, 309–310 skepticism on value of, 297
1 6 .	-
conversion of common property to,	as undervalued, 75, 199
44–45	vaccines as, 36, 207–208
markets for, 18, 36	in well-managed society, 18–19, 20
property rights in, 144–146. See also	Purdue Pharma, 24, 251
property rights	pure economic goods, 81
production, innovations in, 210–211, 211, 212,	overnomy. I I I a
213, 214	QWERTY keyboards, 38

race	promotion of, as ethical obligation, 231
and inequality, 59, 60	on property rights, 18, 145
and pollution exposure, 65	regressive, 63-64, 65, 202-203
rate of return	special interests affecting, 147, 148, 151,
in corporate capital, 182, <i>182</i> , 183	157-158
in discounting, 130-132, 138. See also	stability of, 148-150, 157
discounting	standards in, 143–144, 149, <i>149</i>
in innovations, social and private	at state and local level, 23, 25, 52
returns in, 46, 205, 206, 208–214, 220, 223, 319	on sulfur dioxide emissions, 163–166, 306–307
payback period in, 137–138	in well-managed society, 18, 19, 145
in socially responsible corporations, 248	renewable energy, 52, 175, 217, 218 rents, taxes on, 191
in socially responsible investments, 256,	reproduction rate in pandemics, 116, 117-118
257–258, 262, 262, 334–335n7	Republican Party environmental policies,
in Treasury bonds, 182, 183	299
Rawls, John, 18, 324n2	research
Reagan, Ronald, 149, 163, 310-311, 312	appropriability of, 210, 211
rebates in Green taxes, 203	social and private rate of returns in,
reciprocity in tariff agreements, 161–162	212, 213, 214
regressive nature of environmental policies,	resource allocation, 29, 30, 30
63-64, 65	restitution in harm to others, 234
in Green taxes, 64, 202-203	return rate. See rate of return
rebate proposal on, 203	rights
regulations and laws, 41–49	of animals, 10, 66, 300
in behavioral problems, 139-140	property. See property rights
bias in, 150–152	risk
Chicago School on, 308-310	in corporate capital and profits, 183
command-and-control, 143, 144, 176,	in Green portfolios, 262, 334–335n7
317	in life-cycle analysis, 139
on corporations, 242–243, 244–245	Rocke, David M., 55–56
cost-benefit analysis of, 43, 47–49, 94,	Rohm and Haas Company, 204
142, 144, 150–151, 165–166, 313	Romer, Paul, 46, 332n4
direct regulatory controls in, 143, 144	Roosevelt, Franklin D., 161, 170–172
distributional impact of, 63–65,	Saaba Joffman 92
202–203	Sachs, Jeffrey, 82
excess costs of, 317	Sale, Kirkpatrick, 300
federal, 23, 25, 51–52, 143, 144, 148–152	sanctions in climate compact proposal, 291–292
Goldilocks principle in, 142, 165,	SARS-CoV-2 virus, 110. See also COVID-19
307–308, 308, 309	pandemic
in Green New Deal, 176	scarce public resources, auctions of, 198–199
inefficiency in, 144	Schumpeter, Joseph, 122–123
in internalization of externality, 23,	Sea-Nine, Green design of, 204, 206
145, 213, 228, 229 international. See international	sentient beings, 67 shareholder value, 240
	and corporate responsibility, 183, 247,
agreements lag behind scientific findings, 168	247
legal incompleteness of, 243–245	profits as, 183–184, 186
liability laws, 145, 146	short termism in decisions, 188, 243, 252, 318
market-type, 25, 144	Sierra Club, 9
optimal pollution in, 46–49	Silent Spring (Carson), 14–15
politics of, 157–159, 163–166	Simon, John, 257
progressive, 63–64, 65	sinful products

excluded from ethical investments,	spillovers. See externalities or spillovers
255	Spirit of Green, 20-26, 297, 298, 314-321
taxes on, 199-200, 318	stakeholder interests, 240, 241, 243, 246, 248
Singapore, congestion pricing in, 195	in unprofitable activities, 249
Singer, Peter, 67, 257	Standard and Poor 500 (S&P 500), 261
Slater, David, 66	standard of living. See living standards
smallpox, 114, 116-117, 118, 126, 207	standards in government programs, 143–144
Smith, Adam, 3	on air pollution, 149, <i>149</i>
invisible-hand principle of, 12, 18,	steel tariffs, 151, 159
30-31, 48, 227	Stone, Christopher, 244
The Wealth of Nations, 30-31, 227	Stotz, Louis, 101
snowpack, climate change affecting, 272, 274	subsoil assets, 91–92, 327n6
social costs, 22, 23, 319	substitution, 68, 80
of automobiles, 22, 48	in consumption, 80, 81, 316
of carbon dioxide emissions, 75,	sulfur dioxide emissions, 74, 162–166
89–90, 144, 166–167, 229, 312	abatement costs, 307
of coal-fired power plants, 92, 186, 206	and acid rain, 163
and corporate responsibility, 248–249	cap-and-trade system on, 164, 166,
of efficient pollution, 142	202, 284
and net national product, 92	cost of damages from, 165, 191, 197
and profits in pollution, 186	in electricity generation, 42–43,
of sulfur dioxide emissions, 191	164–166, 306
social distancing in COVID-19 pandemic, 119	
Social Index Fund of Vanguard, 259	government failures in, 309
ę .	and gross domestic product, 306 historical trends in, 306, 306–307
social ranking, Pareto rule on, 28–29	
social responsibility	innovations for reduction in, 205
in corporations, 239–253. See also	marginal costs and benefits in, 165, 166
corporate social responsibility	permits on, 25, 64, 164, 165, 196–197,
in investments, 239, 240, 254–263	202, 309
social value, 106, 181, 186, 187, 193	politics of, 162–166
society, 17–26, 68	regulations on, 163–166, 306–307
catastrophes in, 110–126	social costs of, 191
corporations in, 240	taxes on, 191, 192, 196–197, 202
impersonal spillovers in, 142–143	supply and demand, 18, 74
principal-agent problem in, 52–56	sustainability, 75–82, 316
role of technologies in, 33	of Biosphere 2 project, 96, 104–108,
well-managed. See well-managed	109
society	capital in, 106–107
well-ordered, 18, 324n2	components of, 79–82
soil conservation in New Deal era, 172	of consumption, 8, 78, 88, 316
solar power, 217, 219–220	definition of, 103
electricity costs in, 218, 220, 220	of development, 77, 82
Solow, Robert, 77–78, 80, 81	economic criteria in, 77-79, 106-107
space colonization, 102-104, 109	of exo-civilizations, 95–109
space tourism, 102, 103	in forestry, 76, 87–88
Spanish flu, 114, 114, 116, 117, 118	in Green architecture, 3
special interests, 147, 148, 151, 157–158	in living standards, 78, 103, 109, 316
in climate change denial, 283	measures of, 106-107
and government failures, 309	origins of concept, 76-77
in tariffs, 159-160, 161, 162	Pinchot on, 8
species	Solow on, 77-78, 80, 81
in Biosphere 2 project, 105–106	sustainable finance, 239
endangered, 66	sustainable output, 87-88
survival of, as sustainability issue, 81	sustainable yield, 76, 87-88

tail events, 113, 317	TIAA portfolios, 260–261
tariffs, 151, 159-162, <i>160</i> , 282, 290	companies included in, 259, 260, 261
taxes, 179, 189-203, 318	exclusion criteria in, 261
on capital, 190	returns on, 256, 257, 262, 262
carbon. See carbon taxes	tipping points in climate change, 274, 279
changes in laws on, 150	tobacco
congestion, 39, 194–195, 198–199	excluded in ethical investments, 254,
efficiency of, 190–191	255, 258, 259
on gasoline, 64, 198, 201, 203, 318	taxes on, 190, 199, 200, 318
on harmful products, 190, 199–200	tolling, electronic, in highway congestion,
on income, 161, 190–191	194, 195, 205
in internalization of externality, 144,	tradable emissions permits, 25, 164, 175, 278
192, 318	trade
on land, 191	in global economy, 162, 268, 290
life-cycle analysis of, 139	tariffs in, 151, 159–162, 282, 290
net benefit in, 193, 193	
	traffic congestion. See highway congestion
on ozone-depleting chemicals, 202	"The Tragedy of the Commons" (Hardin),
Pigou on, 33–34	12–13
potential for, 195–196, 200–201	transportation
in practice, 201–202	innovation of automobiles in, 15, 305,
and profit trends, 182, 182–183, 183	319
regressive, 64, 202–203	taxes on fuels in, 64, 198, 201, 203, 318
on rents, 191	Treasury bonds, 182, <i>183</i>
revenues from, 200, 200-201, 201	trees, 8–9
on sulfur dioxide emissions, 191, 192,	and carbon footprint, 235–236
196–197, 202	market values of, 10, 11
tariffs as, 159	sustainable yield from, 8, 76, 87–88
in well-managed society, 19	Trump administration, 40, 312
Taylor, Paul, 11	America First policy of, 281
Teachers Insurance and Annuity Associa-	climate change policies of, 275, 285,
tion of America portfolios. See TIAA	320
portfolios	COVID-19 pandemic during, 112,
technological externalities, 39, 40, 245, 246	124-125
technologies, 15, 16	tariff policies of, 160, 162
in free markets, 304-307, 312	tax policies of, 150
in Green society, 33	Tuchman, Barbara, 320
and historical economic growth, 97,	typewriters, 38, 39
98-101	
in lighting, 99-101, 100, 101, 305	United Nations
for low-carbon economy, 214–223,	Educational, Scientific, and Cultural
293, 319	Organization (UNESCO), 303
network effects in, 38	Framework Convention on Climate
and pecuniary externalities, 39-40,	Change (1994), 284, 287
245–246	United States
in pollution control, 25, 42	animal rights in, 66
and positive externalities, 45–46	and Biosphere 2 economics compared
prohibition on export of, 208	104–108, 109
promoting Green behavior, 28	carbon dioxide emissions in, 90, 90,
in transportation, 15, 305, 319	196, 242, 280, 286
temperature, global warming in. See global	carbon intensity in, 286
warming	carbon price in, 167, 280, 291
Terrapass, 234, 237	carbon taxes in, 196, 202
Thaler, Richard, 132	climate change deniers in, 283
	cost of pollution control in, 313
Thoreau, Henry David, 300	cost of political collinorii, 515

COVID-19 pandemic in, 112, 115,	Vickrey, William, 194, 195
120-126	Volkswagen, 251, 299
decarbonization in, 287	von Wachter, Till, 40
defense expenditures of, 282	
democracy in, 153	Walmart, 40
economic inequality in, 58, 58	warfare
electricity generation in, 216	as catastrophe, 111
environmental federalism in, 51–52	lethality of, 154, 154, 282
fiscal resources of, 122	principal-agent problem in, 55-56
fuel taxes in, 198	Washington, George, 189
Green national output in, 83-94, 316	wastewater, 16
Green New Deal in, 170–176	water pollution, 22, 27, 31.51, 268
Green taxes in, 195-203, 200	water supply
gross domestic product of, 84, 98, 108,	auctions of, 199
108, 286, 316	and wastewater concept, 16
health effects of air pollution in, 163,	The Wealth of Nations (Smith), 30–31, 227
166	Weitzman, Martin, 85–87, 291, 327n3
inefficiency of regulations of, 144	well-managed society, 17–20
institutional structure in, 148, 157	collective actions in, 2
irreplaceable assets in, 80–81	efficiency in, 18, 28, 30, 315
in Kyoto Protocol, 284	ethics in, 226, 228–229, 237
in Paris Agreement, 285	fairness in, 57
pecuniary externalities in, 39	goal of, 17–18, 28, 315
politics in, 148–152, 153, 157	markets in, 18, 19–20, 227–228, 237
sulfur dioxide emissions in, 163–166,	pillars of, 18–20, 145, 168, 181, 226,
196–197, 202, 309	315
tariff policies in, 159–162, <i>160</i>	property rights in, 18, 145
water resources in, 199	well-ordered society, Rawls on, 18, 324n2
United States-Canadian Great Lakes Water	Where the Law Ends: The Social Control of
Quality Agreement (1972), 27	Corporate Behavior (Stone), 244
university investment policies, 251, 255,	wildfires in climate change, 272
257–259	wind power, 217, 218, 237
	Wines, James, 2–3
urban areas, congestion pricing in, 194–195 utilitarianism, animal, 67, 69	Woodward, Bob, 125
utilitariamsin, animai, 07, 07	World Commission on Environment and
vagginations 126	
vaccinations, 126	Development, 77
for COVID-19 prevention. See COVID-19 vaccines	World Health Organization, 120, 121
	World Heritage Center, 303–304
and infectiousness, 116, 117, 118 nonrivalry in, 207–208	world heritage sites, 303 World Trade Organization, 268, 290
• •	World Trade Organization, 200, 290
as public good, 36, 207–208	your manby invention of 16
for smallpox prevention, 117, 207	xerography, invention of, 46
social and private return in, 204–205	Valo II nivonsity 7 0
technology developments in, 46	Yale University, 7, 8
value maximization, 241, 243	investment policy of, 257–259
enlightened, 243	Yellowstone National Park, 44, 146, 302–304
value systems, human-centric and biocen-	310
tric, 9–12 Venguerd Cross portfolios of 260, 260, 261	gara not amissions, goal of 174, 175, 102, 215
Vanguard, Green portfolios of, 260, 260–261	zero net emissions, goal of, 174–175, 193, 215 and innovation for low-carbon econ-
exclusion criteria in, 259, 261	
expense ratio in, 263	omy, 214–223
returns on, 262.262	zip code effect, 59–60