

I've long looked at [global warming](#) as a worthy topic that I should try to wrap my mind around. Although I knew I needed to dig deeper, I never truly understood why.

Until now. "[The Climate Casino](#)," by William Nordhaus, provided compelling answers to my unanswered questions in a comprehensive and lucid way. It is a one-stop source on global warming, seen through the prism of a brilliant economist.

[Mr. Nordhaus](#), Sterling Professor of Economics at Yale, picks through an impressive tool kit of the latest findings in climate study and economic theory. From these, he pieces together a highly nuanced argument with rare clarity, feeding the reader enough but not too much. His book, though scholarly and demanding, offers the pleasure of watching an extraordinary mind at work. Even his footnotes are a resource.

Like many other experts, he sees a drastic reduction in the burning of coal as the obvious step in reducing greenhouse gases. He urges that we accomplish that by enacting a tax on carbon dioxide emissions of, say, \$25 a ton for openers — or the equivalent in exchangeable pollution credits in the system known as [cap and trade](#) . And, he says, we need to do it right now.

At stage center in these pages is a character named DICE, a [computer model](#) devised by Professor Nordhaus and his colleagues. DICE is an "integrated assessment" model, which means it combines projections of pollution and climate change with projections of global economic growth, and then computes how they can be expected to affect each other. The model drives his findings the way a souped-up engine drives a Nascar sprint car.

Professor Nordhaus understands that major uncertainties remain about how nature works. Computer models help, but they can disagree. Nevertheless, he says, we have no choice but to make our best guesses and most prudent choices, relying on a "fuzzy telescope."

Economic growth produces greenhouse gases, he points out, so if it is assumed that these gases will increase, then economic growth will continue as well. He has confidence in our grandchildren's ability to adjust to climate change, mainly because they are likely to inhabit a much wealthier world, with better abatement technologies.

“The likelihood that people will be richer in the future is no excuse for ignoring climate change today,” he writes. “But it is also a reminder that we will be leaving our grandchildren a more productive economy alongside a degraded climate.”

DICE informs him that with a possible increase in temperature of 2.5 degrees Celsius, global warming in 2070 can be expected to inflict economic losses and damage amounting to 1.5 percent of global output. That would not be trivial, but it wouldn’t be devastating, either. He estimates that 90 percent of the United States economy would be negligibly or only lightly harmed by greater warming. Only 1.2 percent, mainly farming, now a mere sliver, would be hit hard.

That dollar damage would include items like lower crop yields and flooded waterfront properties. But the estimate does not cover the possible destruction of natural wonders like the Upper Amazon or thousands of species. Their loss cannot be captured in dollars, yet we must insist on protecting them when figuring costs and benefits, he says.

He expects that economic damage from climate change will probably be quite small compared with economic growth over the next half-century to century. But he warns that Mother Nature may play her hand in a way that upends logical forecasts and leads to global disaster.

In particular, he frets about four tipping points: the collapse of the large ice sheets of Greenland and West Antarctica; large-scale changes in ocean circulation (possibly reversing the Gulf Stream); situations when warmth prompts more warmth (say, by the thawing of frozen methane); and the possibility of a warming trigger that may double the Earth’s temperature increase, to six degrees Celsius. (Even three degrees is now considered an unthinkable extreme.)

The “casino” aspect of his book’s title refers to the difficult debate over how much we should spend to protect the planet from these low-probability but potentially catastrophic events. Unfortunately, as Professor Nordhaus acknowledges, dealing with global warming is but one of many worthy causes competing for tax dollars.

His views put him to the right of center on the ideological spectrum, but he has no patience with the few “contrarian” scientists and numerous political figures who contest the established

'Climate Casino' - An Overview of Global Warming

Written by Administrator

Sunday, 01 December 2013 02:37 -

science that global warming is real and ominous. Though he includes a hopeful chapter meant to appeal to thinking conservatives, not even DICE is smart enough to devise a solution to the intractable politics of climate change, which are stubbornly deadlocked.

The temptations of “free riding” — letting other industries or other nations do the heavy lifting, and letting tomorrow’s generations take care of themselves — seem almost overwhelming. It is a trillion-dollar problem and it requires a trillion-dollar solution, or so he concludes.

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