OVER the past two weeks the world has received sobering news concerning the melting of polar ice. Unexpectedly deep canyons in Greenland’s bedrock mean that its retreating glaciers will be in contact with warm ocean water for longer, and will therefore melt faster. And in West Antarctica a wall of glaciers separating a vast basin of ice from the sea is coming apart far faster than anticipated, suggesting that quite a lot of sea level rise is now unavoidable and will occur faster and more dramatically than anticipated.

So, time to sell that oceanfront property? Perhaps not. Many of the reports covering the news read like this:

A large part of the West Antarctic Ice Sheet, a massive expanse of frozen water that flows into the Amundsen Sea, is likely already in the process of collapsing, probably irreversibly. A pair of studies show that part of the sheet is melting more quickly than previously thought, and that several of its large glaciers will probably melt into the ocean, raising global sea levels at least 10 feet in the coming centuries. And it cannot be stopped.

For many readers the sense of anxiety no doubt melted away like a chunk of polar ice at the qualification “in coming centuries”. Sea level rise is just one of many ways in which global climate change will affect humanity, and serious repercussions from other phenomena—like longer, more frequent, and more intense severe weather patterns—will
become meaningful problems long before rising seas begin disrupting the economy (unfortunately for those living in places like the Maldives). But all of these changes will be felt most severely decades or centuries down the road: after our children, and our children's children, are gone. That is a nasty complication for economists trying to figure out the most appropriate way to respond to climate change. Some economists, like Martin Weitzman, reckon that significant investment may be justified now as a form of insurance. There is a risk that climate change will happen faster or be more costly than we anticipate, possibly threatening humanity's very existence. Whether or not it makes sense to pay to cut emissions in order to enjoy the benefits of slower warming, it is worth taking action now in order to reduce the odds of a civilisation-ending outcome.

Though that argument makes quite a lot of sense, it does leave some economists unsatisfied. Surely the costs of warming are high enough that it's worth cutting emissions to stop it, whether or not it threatens our very existence, right?

It seems like that ought to be the case. But to suss that out, we have to make an assumption about discount rates—that is, how much we, today, should value benefits received well down the line—in order to compare costs today to benefits tomorrow.

If one believes that humanity should take drastic action now even though it might slow economic growth, one has to assume that future costs will be very, very big or that people living today place significant value on benefits realised 50 or 100 or 500 years down the line. And that strikes many dismal scientists as implausible. It is easy enough to imagine that people living today care about benefits that might accrue
to them in their old age, or that of their children or grandchildren. But look much beyond a century and the beneficiaries become too distant to count much in our mental calculus.

Discount rates, in other words, are high. In a lot of climate modelling, researchers use discount rates of around 4% to 6% (common estimates of the average rate of return to capital) to calculate the present value of future benefits from reduced emissions today. That sort of rate implies that humans should do a bit to save the planet, but only just a bit. Lower discount rates, like the 1.4% effective rate used by Sir Nicholas Stern in his review of the economic risks from climate change, imply that humanity should be willing to be substantial costs in the present to protect generations in the distant future from harm.

Unfortunately, peeling apart how people actually discount benefits centuries or more in the future is very hard. But a fascinating new NBER working paper uses a clever approach to take a crack at it. The authors exploit an oddity in British real estate: Britons buying a home may either purchase what is known as a freehold (which means they own the land outright) or a leasehold (which means they "own" it for the duration of the leasehold). But leaseholds aren't like your standard rental contract; they often grant ownership for periods between 80 and 999 years. The authors reckon that by finding the premium paid for freeholds relative to super-long-dated leaseholds on otherwise identical properties, they can come up with an estimate of how distant benefits are actually valued in the market.

Remarkably, they find that people pay a premium of 10%-15% less for 100-year leaseholds and 5%-8% less for leaseholds of between 125-150 years. Only for leaseholds of 700 years or more do they detect no
difference in price. On the whole, they reckon, a discount rate of about 2.6% appears to apply out well beyond a century. Oddly enough, people are willing to part with real money now in exchange for benefit flows accruing well beyond any reasonable expected lifespan. That won't make it any easier to generate the political support for meaningful action to slow climate change. But it does make it harder to justify delay based on the fact that people simply don't care much about the distant future.