The social cost of carbon is important in many regulatory decisions made by the executive branch. It basically measures the benefit of cutting one ton of carbon emissions. Figuring out the cost of carbon based on an analysis of climate impacts is very tricky. However, there's another way to think about the problem: We might ask instead what social cost of carbon is reflected in current law. Judging by the Inflation Reduction Act (IRA), the answer seems to be at least $60 per ton.

The basic calculation is pretty simple. The IRA will provide a roughly $379 billion investment in reducing carbon emissions. A current estimate is that it will reduce cumulative GHG emissions by about 6.3 billion tons over the next decade (through 2032). That works out to about $60 per ton of carbon.

The true number could be a bit higher, since there's a lag between spending money on facilities and the resulting emission cuts. If we assume this lag averages 3 years and use a discount rate of 3%, the value of the emission cut would have to be more like $70 to make it worthwhile to invest $60 three years in advance. We could also refine the calculation by looking at the costs and emission cuts of specific provisions of the law, which would probably generate a range of estimates.

Also, if it had had to, Congress might have been willing to pay more. The fact that someone actually pays for something isn't a ceiling on the amount they would be willing to pay if they had to. My morning coffee is a case in point.

One of the controversies about the social cost of carbon is whether to include the harm that climate change will do in other countries. Some people argue that only Congress an decide whether to include those damages. It's worth noting that the $60/ton figure makes no sense unless we assume Congress cared about harms in other countries. It's about ten times as high as the Trump Administration's social cost of carbon, which only included U.S. impacts.

What we can learn from this exercise? First, the IRA's expenditures seem pretty reasonable compared to estimates by economists of the social cost of carbon. That's reassuring. Second, agencies should feel comfortable using social cost of carbon estimates of at least this level. That would be in line with the decisions made by the elected branches of government.

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