Published on *Adam Smith Institute* (http://www.adamsmith.org)

The unprecedented $60 trillion of costs of Arctic melting [1]

Written by **Tim Worstall** [2] | Friday 26 July 2013

Much ado about a new study published in Nature. Arctic melting could lead to methane emissions which would cost the world $60 trillion. This is an unprecedented danger say scientists. Sadly, whatever one thinks of the scinece in this, those damages aren't unprecedented at all. Indeed, they're already written into the costs which we use to worry about what to do over climate change [3].

> But, they say, economists are missing the big picture. "Neither the World Economic Forum nor the International Monetary Fund currently recognise the economic danger of Arctic change. [They must] pay much more attention to this invisible time-bomb. The impacts of just one [giant "pulse" of methane] approaches the $70-tn value of the world economy in 2012", said Prof Gail Whiteman, at the Rotterdam School of Management and another author.

The problem with this assertion is that all of the standard estimations do indeed include damages like this. Let us take the Stern Review for example, that's the one that tends to be used as a benchmark (and is indeed the benchmark that these scientists have used). In that Stern Review, drawing from the estimates in the Special Report on Emissions Scenarios, the assumption is that the global economy will grow by some 5 to 11 times over the course of this coming century. Global GDP will be between $250 trillion and $550 trillion. Stern then says that the damages from climate change could be as much as 20% of this sum. That is, that GDP would have been in that range but will now be in the $200 to $400 trillion range. Note that that is his worst case argument.

And here we have an estimate that damages could be $60 trillion over a 50 years time period: say, $1 trillion a year with a bit of rounding. Or one half of one percent to one quarter of one percent of global GDP. We have already got this included in our top whack estimate of damages of 20% of future potential GDP.

All of which brings us to the real point at the heart of the entire climate change discussion. No, not whether it is happening or not: let's leave the range of possibility open from nothing is happening at all all the way through to the sort of disasters being predicted here. It is still true, wherever on that spectrum we are, that we want all humans over time to be just as rich as is possible. We are therefore trying to balance the costs of not doing something about climate change against the costs of trying to do something about climate change. And as these century long figures show there are significant costs to both, or at least potentially there are.

But we should be measuring the costs of doing something as against the loss in GDP which doing something will cause. Just as we should be measuring the costs of not doing anything against the cost that not doing anything will cause. It's worth trying to avoid such methane releases if the cost of doing so is less than the economic growth that will be foregone. Which is where throwing around numbers like $60 trillion becomes unfortunate. For it's a cost over many decades: $1 trillion a year is more reasonable to use. And compared to the benefits that economic growth is going to bring to our descendants that's however large it is in one manner, really rather a trivial figure.

blog comments powered by Disqus [5]

Source URL: http://www.adamsmith.org/blog/energy-environment/the-unprecedented-60-trillion-of-costs-of-arctic-melting

Links:
[1] http://www.adamsmith.org/blog/energy-environment/the-unprecedented-60-trillion-of-costs-of-arctic-melting
[2] http://www.adamsmith.org/taxonomy/term/5778
[3] http://www.guardian.co.uk/environment/2013/jul/24/arctic-thawing-permafrost-climate-change
[4] http://disqus.com/?ref_noscript
[5] http://disqus.com