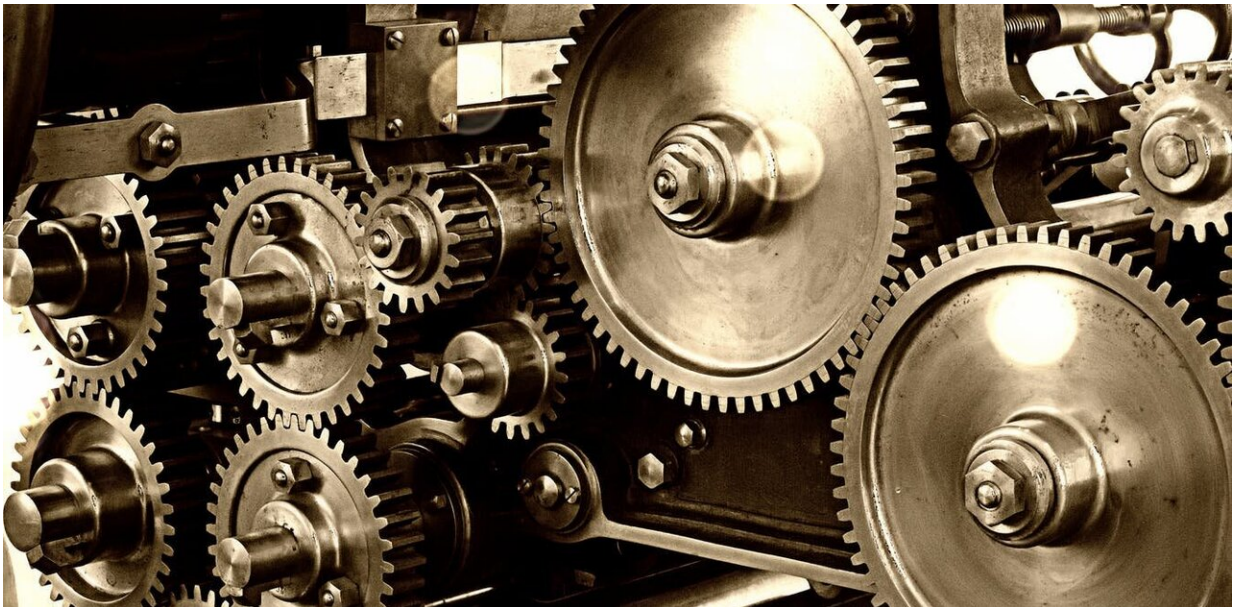


Carbon productivity: What if we measured the thing that matters most?

October 25 2019, by David Peetz



Carbon productivity is the measure that matters, but we are hung up on the productivity of our workers. Credit: [pixabay/pexels](#)

Ask any economist a question, and you will usually get the answer: "productivity."

The winner of the 2008 Nobel Prize in Economics, Paul Krugman, set the standard in [1994](#): "Productivity isn't everything, but, in the long run, it is almost everything. A country's ability to improve its standard of

living over time depends almost entirely on its ability to raise its output per worker."

The new head of Australia's treasury, Steven Kennedy, said much the same thing this week: "The most important long-term contribution to wage growth is labor productivity."

For my money, they could say the same about "carbon productivity," a idea that is going to matter to us more.

Labour productivity is notoriously [hard to measure](#); measuring changes in it is harder still.

It's relatively easy to measure in the jobs we are doing less of these days, such as making washing machines; harder to measure in the jobs we are doing more of, such as caring for people.

And it's less important than you might think. People aren't a particularly finite resource. Allowable carbon emissions are.

Carbon is the input that matters

The Intergovernmental Panel on Climate Change says net carbon emissions will have to be reduced to [zero](#).

That means we've a carbon budget, a limited amount of greenhouse gas we can emit from here on. It would make sense to use it wisely.

What I am proposing is a target for "carbon productivity," the amount of production we achieve from each remaining unit of emissions—as a means of helping us cut overall carbon emissions.

It's easy to calculate: gross domestic product divided by net emissions.

We already measure GDP, and we already measure emissions [in tonnes](#), albeit unevenly.

We are going to need huge increases in carbon productivity, much more so as a result of cutting emissions than increasing production.

Things that are good for labor productivity might well be bad for carbon productivity. For example, replacing a sweeper with an air blower is good on the first count, bad on the second.

Measuring carbon productivity...

If introduced at a national level, a target, or at least a widely published measure, could start to focus government minds on what's important and what's not, and assist in allocating resources. Solar farms would become more likely to gain support than coal-fired power plants.

Regulatory resources might be redirected in surprising ways. While a small number of large emitters constitutes an easy target for policymakers, if those large emitters are efficient, the government might find it has to move its focus to the larger number of small inefficient emitters.

It could also help us think about how we resolve the conflict between the perceived need for economic growth and the need to substantially cut emissions. Both would be important, the measures that achieved both would be the most important.

Accounting debates about whether to carry carry forward international credits would be rendered meaningless.

Giving national attention to measuring carbon productivity would put more pressure on more firms to measure all of their emissions. Many

already measure their "scope 1" direct emissions. A smaller number measure "scope 2" emissions (from things such as electricity used by the firm).

A much smaller number measure "[scope 3](#)" emissions (from sources they do not own, such as air travel, waste and water). They're the [hardest to measure](#).

...might just produce results

For some, sustainable economic growth is a contradiction in terms.

They argue that [economic growth](#) is incompatible with ecological survival.

But the population appears to want [both](#), and the political and social consequences of failing to achieve both could be [devastating](#) for democratic society and the planet. It has already been established that rising unemployment [reduces support](#) for action on climate change.

Targeting or measuring carbon [productivity](#) by itself won't achieve those goals.

For that, we would need some form of [carbon](#) pricing and a government committed to the uptake of low-emission technologies.

But if we are to have a shot at achieving both, we'll need to know where we are going.

This article is republished from [The Conversation](#) under a Creative Commons license. Read the [original article](#).

Provided by The Conversation

Citation: Carbon productivity: What if we measured the thing that matters most? (2019, October 25) retrieved 4 July 2024 from <https://phys.org/news/2019-10-carbon-productivity.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.