

A Carbon Tax Shift to Control Global Warming

The two most prominent proposals for controlling global warming are:

- **A Carbon Tax:** Fuels would be taxed based on how much carbon dioxide they emit, with the tax increasing every year. Though it is called a carbon tax, ideally it would also tax other greenhouse gas emissions, such as methane.
- **A Cap-and-Trade System:** Government would set an upper limit on the amount of carbon dioxide (and other greenhouse gases) that each industry can emit, with the limit decreasing every year. Businesses that reduce emissions below their limit could sell emission rights to businesses that remain above their limit.

The conventional wisdom is that a carbon tax would be the most efficient way to control global warming but that it is not politically feasible to create a major new tax, so cap-and-trade is our only alternative.

Yet a carbon tax could be politically feasible if it were presented not as an added tax but as a tax shift meant to lower other taxes, such as the income tax.

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From Tax to Tax Shift

A carbon tax bill introduced in congress by Rep. Pete Stark would tax carbon dioxide at \$10 a ton the first year and would raise the tax by \$10 a ton each year until carbon dioxide emissions are reduced to 80% less than their 1990 level.

A similar bill introduced by Rep. John Dingel would tax carbon dioxide emissions from coal, oil, and natural gas at \$10 a ton the first year and would raise the tax by \$10 each year until it reached \$50 a ton. It would also include an additional tax of 10 cents a gallon for gasoline and jet fuel, increasing each year until it reached 50 cents in the fifth year. This adds up to a total tax of 63 cents per gallon of gasoline after five years.

It is encouraging to see that Rep. Dingel of Michigan, a state whose economy depends on the automobile, is convinced that global warming is so serious that we need a tax that would affect a key industry of his state. But the maximum tax in his proposal is so low that it would have a negligible effect on global warming, and the tax would have to go up much higher in subsequent years to be effective. Gasoline prices have

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already gone up more than 63 cents in the last few years without reducing driving significantly.

There is very little support for this sort of open-ended tax increase. In fact, Newsweek reported on Dingel's bill under the headline "This Is Going to Hurt," with the subheading "A defender of the auto industry proposes a carbon tax that will cause everyone pain. Is the country ready for shared sacrifice to combat global warming?" (*Newsweek*, Sept 27, 2007, <http://www.msnbc.msn.com/id/21012480/site/newsweek/>)

If we implement a carbon tax shift instead of a carbon tax, it would be just as effective in combating global warming but it would not involve a tax increase that everyone rejects because it involves the pain and sacrifice. We would simply have to add the following provision to the carbon tax:

"Each year, the Internal Revenue Service will return all the money collected by the carbon tax to taxpayers as a refundable income tax credit, given equally to each taxpayer."

With this provision added, a carbon tax would be much more politically palatable, because there would be no net tax increase, and it would be just as effective in combating global warming.

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Tax vs. Cap and Trade

This sort of carbon tax shift would have tremendous advantages over keeping current income tax rates and adding a cap-and-trade system to control carbon dioxide emissions.

Income tax has no benefit except raising revenue. A carbon tax has this benefit of raising revenue, and it has the additional benefit of dealing with our most pressing environmental problem, global warming. A carbon tax gives much more benefit than an income tax of the same amount.

A carbon tax could apply to imports, while a cap-and-trade system could only apply to domestic products. Products imported from other countries could be required to declare how much carbon dioxide is generated in producing them and transporting them to America, and they would have to pay the carbon tax on these emissions. Thus, a carbon tax would help convince other countries to reduce emissions, in addition to reducing American emissions. It would also favor locally produced goods over imported goods, because local goods are transported shorter distances. Reducing the distances that goods are transported is important to controlling global warming: in a global economy, a single nation can deal with this issue by adopting a carbon tax shift, while a single nation's cap-and-trade would not affect transportation outside that nation.

A carbon tax would encourage technological innovation. Currently, for example, photovoltaic solar power is much more expensive than power generated by burning coal, but there are several new technologies being developed that have the potential of cutting its cost dramatically, such as thin-film solar panels and improved

manufacturing techniques. A carbon tax that increases each year would give businesses a powerful incentive to invest in research and development needed to develop better solar technologies and other forms of clean energy. This tax harnesses the market to innovate in the directions where innovations are most needed.

A carbon tax shift would be progressive. For example, someone who owns a 10,000 square foot house is likely to use much more energy for heating and cooling than someone who lives in a small house. There would be some exceptions for people who pay the extra cost of installing their own solar energy systems, but they would still have to pay the tax on the carbon dioxide embodied in all the products they consume. As a general rule, the more you consume, the more carbon dioxide you emit – both directly and in form of the energy embodied in the products you buy. Thus, a carbon tax shift would take more revenue from wealthier people who consume more, and it would return this revenue as a tax credit given equally to everyone.

Market vs. Command Economy

In addition, a carbon tax would be more efficient than a cap-and-trade system, because the carbon tax takes advantage of the market economy while a cap-and-trade system is a modified form of command-and-control economy. This is the main economic argument for a carbon tax.

A carbon tax uses the market to let people choose the emission reductions that are easiest for them to make. For example, many people may be quite willing to shift from frozen foods to canned foods that use less energy and from beef to chicken that emits less methane. As the tax goes up and products' emissions are reflected in their prices, consumers will choose to shift away from more expensive products that give them the least benefit, like these, and still consume the more expensive products that are most important to them.

By contrast, a cap-and-trade system allocates an emissions cap to each industry based on the decisions of a government bureaucracy, which will be heavily lobbied by those industries. For example, even if Americans are quite willing to eat more canned foods and chicken, the frozen food and beef industries have enough lobbying power that their emissions would not be limited more than other industries'. Of course, the trading part of the cap-and-trade introduces some market flexibility into the system, but it is unlikely that the frozen food and beef industry would do enough trading to reduce their emissions as much as they would be reduced with a carbon tax, because this could virtually eliminate these industries. Thus, cap-and-trade would protect products that consumers want less, sacrificing products that we want more.

In addition, it is difficult for a cap-and-trade system to set effective caps, because industry lobbies the agencies that set the caps. The European Union has had a cap-and-trade system since January 1, 2005, with a trading system so complex that they designated Phase 1 a trial-and-error period, used to learn lessons that they would use to improve the system in Phase 2, beginning in 2008. They created such high caps in Phase 1 that emissions had a very low price in trading, so the system has done little to reduce emissions so far.

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It is much simpler and more effective to have a carbon tax that increases by a fixed amount each year without being subject to industry lobbying. The tax should be set at a level that would lower emissions in 2050 to 80% of their 1990 level, the amount needed to keep the global temperature increases below 3.6 degrees Fahrenheit, which is needed to prevent global warming from causing a major increase in extreme weather events such as droughts, heat waves and hurricanes.

Political Feasibility

The conventional wisdom says that only cap-and-trade is politically feasible. But this is true because cap-and-trade has gained support from business because it offers windfall profits to businesses that reduce carbon dioxide emissions more than required.

We could change what is politically feasible by emphasizing that cap-and-trade means the money generated by the system goes only to businesses, while a carbon tax shift means that the money goes equally to every taxpayer.

We should also emphasize that, with this sort of a plan, the majority of Americans would not pay any income tax: after a decade or two, only the very rich would still pay income tax, and most Americans would get a check back from the IRS instead of paying taxes.

There would be some short-term economic sacrifice with any plan to reduce carbon emissions, because cheap and dirty energy from coal and other fossil fuels would be replaced by more expensive clean energy at first. Initially, we will have to pay extra for energy, but we will be better off because we avoid the global warming caused by dirty energy. After a time, new technologies should bring down the cost of clean energy.

The immediate issue is what happens to the money that used as an incentive to convince people to shift to clean energy. With cap-and-trade, that money would go to businesses that sell emission credits. With a carbon tax shift, that money would go back to all taxpayers equally to help them pay the higher energy prices.

It is important politically to emphasize that this is a tax shift rather than a tax increase. We should highlight this fact by calling it a “carbon tax shift” instead of a “carbon tax.”

In fact, a bill proposing this plan would probably be very successful if it were named “The Global Warming Reduction and Income Tax Reduction Bill.”

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