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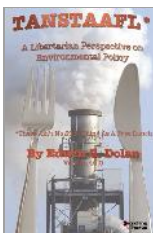
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**Why Progressives Should Love a Carbon Tax—Although Not All of Them Do**

Author: [Ed Dolan \(/blog/author/edolan\)](#) · July 8th, 2013 · [Comments \(19\) \(http://www.economonitor.com/dolanecon/2013/07/08/why-progressives-should-love-a-carbon-tax-although-not-all-of-them-do/#idc-container\)](#)

Progressives should love a carbon tax. Most progressives love the environment and believe that carbon emissions cause environmental harm. Unlike conservatives, whose attitudes toward carbon taxes were the subject of [my last post \(http://www.economonitor.com/dolanecon/2013/07/01/why-conservatives-should-love-a-carbon-tax-and-why-some-of-them-do/\)](#), progressives have no generalized aversion to taxes. Carbon taxes should be a natural for progressives, then, if they can accept the power of economic incentives to slow the destruction of the planet.

To be sure, many progressives do express strong support for carbon taxes. Here are just three of many examples:

- The Center for American Progress has put out a position paper titled [“A Progressive Carbon Tax Will Fight Climate Change and Stimulate the Economy.” \(http://www.americanprogress.org/issues/green/report/2012/12/06/47052/a-progressive-carbon-tax-will-fight-climate-change-and-stimulate-the-economy/http://\)](#) It argues that climate change, economic growth, and fiscal responsibility are intimately linked, and that a price on carbon should be part of a policy to deal with each of these issues.
- Gernot Wagner, an economist at the Environmental Defense Fund, argues that it makes eminent sense to tax what you want less of in his excellent book, [But Will the Planet Notice: How Smart Economics Can Save the World \(http://www.economonitor.com/dolanecon/2011/10/24/only-economists-can-save-the-planet/\)](#).
- In [Green Illusions: The Limits of Alternative Energy \(http://www.economonitor.com/dolanecon/2012/12/10/green-illusions-the-limits-of-alternative-energy/\)](#) Ozzie Zehner argues against the wishful thinking that solar, wind, or other technological fixes will bring a future of cheap, clean, and abundant energy. Insisting that a strong push for energy conservation has to be part of the mix, he advocates carbon taxes to counteract what he calls “the boomerang effect”—the tendency for subsidies for clean energy to make energy in general cheaper, therefore discouraging conservation.

Yet, not all progressives are convinced. Many are skeptical on principle of our capitalist economic system and instinctively distrust market-based environmental policy. Others fear that a carbon tax would disproportionately harm the poor. Still others have ethical objections to the whole idea of bribing people to do things they ought to choose voluntarily, out of love and respect for the planet. Let’s look at each of

[TANSTAAFL: A  
Libertarian  
Perspective on  
Environmental  
Policy from  
Searching  
Finance  
\(<http://tiny.cc/u2pb6>\)](#)

these objections in turn.

### **Doubt that people really respond to market incentives**

One reason that some progressives are skeptical of a carbon tax is a simple doubt that people really respond to prices. If you want to get people to stop doing something, they think, you need a government regulation that commands them not to do it in no uncertain terms.

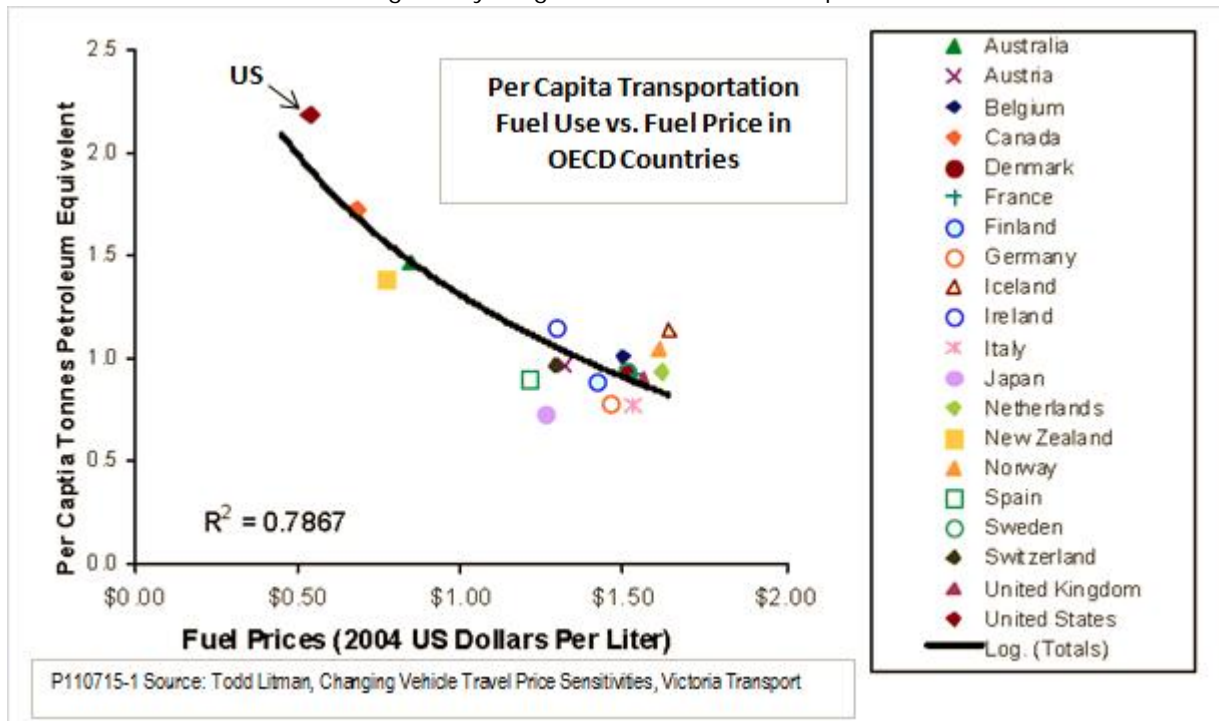
For example, here is how Earthjustice President Trip Van Noppen puts it in [an interview \(http://earthjustice.org/features/ourwork/teleconference-all-out-strategy-how-earthjustice-tackles-climate-change\)](http://earthjustice.org/features/ourwork/teleconference-all-out-strategy-how-earthjustice-tackles-climate-change) published on the organization's website:

The problem with a carbon tax, as a nice and tidy solution for climate change, is that some things we tax we still use. We've got really, really high cigarette taxes, and people still smoke. It doesn't necessarily guarantee the reductions that you'd need to have to prevent climate change. So in other words, we wouldn't know whether the tax would be at a sufficient level to change behavior at the pace we'd need to change behavior . . . we don't really know how much the market would respond.

The economic term for the responsiveness of demand to a change in price is *elasticity*. A large negative value for elasticity of demand means that people make a large reduction in the quantity they buy when the price rises. For example, an elasticity of -0.8 would mean that a 10 percent rise in the price of a product would lead to an 8 percent decrease in the quantity purchased. So what is the price elasticity of demand for carbon-based energy?

The fuel for which economists have most extensively studied elasticity is gasoline. One widely cited source is a [1996 meta-analysis by Molly Espey \(http://www.jstor.org/discover/10.2307/41322693?uid=3739960&uid=2129&uid=2&uid=70&uid=4&uid=3739256&sid=21102148682593\)](http://www.jstor.org/discover/10.2307/41322693?uid=3739960&uid=2129&uid=2&uid=70&uid=4&uid=3739256&sid=21102148682593). She concluded that the best estimate for the price elasticity of gasoline demand was -0.26 in the short run and -0.58 in the long run. [A 2011 study \(http://www.vtpi.org/VMT\\_Elasticities.pdf\)](http://www.vtpi.org/VMT_Elasticities.pdf) by Todd Litman of the Victoria Transport Policy Institute provides a comprehensive review of the literature since Espey's paper. Litman finds long-run fuel price elasticities in the range of -0.4 to -0.8. Those numbers suggest that a tax that added \$1 per gallon to the cost of gasoline—still leaving it well below European levels—would cut use by 10 to 20 percent. (For a more detailed discussion of the evidence on elasticity, see [this earlier post \(http://www.economonitor.com/dolanecon/2011/07/15/is-a-56-2-mpg-fuel-economy-standard-really-a-good-idea/\)](http://www.economonitor.com/dolanecon/2011/07/15/is-a-56-2-mpg-fuel-economy-standard-really-a-good-idea/).)

If elasticity numbers are too abstract, here is a chart from the Litman study, which shows a convincingly tight relationship between fuel prices and fuel use across OECD countries. Can it really be just coincidence that the United States, with the lowest fuel prices, also has the highest fuel consumption?



(<http://www.econmonitor.com/dolanecon/files/2013/07/P110715-1.png>)

Prices are having an effect on fuel choice in other industries, as well. One of the strongest trends is increased replacement of coal by natural gas in the generation of electricity. Duke Energy is one of several big utilities that are rapidly moving from coal to natural gas, in large part because of lower gas prices. According to a report in *Forbes*, (<http://www.forbes.com/sites/kensilverstein/2013/03/13/coal-to-gas-moves-are-generating-economic-waves/>) Duke Energy's chief executive, Jim Rogers, is calling for the government to put a price on carbon with either a tax or a cap-and-trade system. According to Rogers, who should know, doing so would accelerate a trend away from coal, not only toward gas but also toward solar and wind power.

In short, the preponderance of evidence is that prices work, both to promote energy conservation in general and to motivate the choice of cleaner over dirtier sources of energy.

### A carbon tax would hurt the poor

Critics of a carbon tax frequently object that any policy that raises the cost of energy would disproportionately hurt the poor. They base the claim on data that indicate that lower income families spend a higher percentage of their budget on transportation, home heating, and electric utilities than do the more affluent. However, even if we accept the truth of that claim, it does not constitute a valid objection to a carbon tax.

The main reason is that policies to keep energy prices low are a poorly targeted way to help the poor. Just do the math. Start with data ([http://www.americaspower.org/sites/default/files/Energy\\_Cost\\_Burdens\\_on\\_American\\_Families\\_2011.pdf](http://www.americaspower.org/sites/default/files/Energy_Cost_Burdens_on_American_Families_2011.pdf)) indicating that families in the bottom half of the income distribution spend an average of about 20 percent of their budgets on energy, compared with less than 10 percent for those in the top half. Combine that with the fact that households in the lower half of the income distribution receive only about 20 percent of all income. Comparing 10 percent of 80 percent to 20 percent of 20 percent makes it clear that lower-income families, despite their greater *relative* expenditures, consume only about a third of all energy. The much smaller number of households that fall below the federal poverty line probably consume only about 15 percent of all energy. That would mean that for every dollar by which national consumer energy costs decrease, the poor gain only 15 cents.

There are many proposals for combining a carbon tax with targeted mechanisms for offsetting its impact on the poor. One

way to do so would be to refund part of the tax directly to low-income households, either through a special rebate or by expanding some existing program like the Low Income Home Energy Assistance Program. As long as the rebate came in a lump sum, rather than in proportion to energy use, it would offset the distributional effect of the tax without reducing its incentive to conserve.

Another approach—one that is consistent with revenue neutrality—would be to use some of the money from a carbon tax to lower the marginal rate of the payroll tax. Because the payroll tax is inherently regressive, reducing it would disproportionately help lower-income households. With either of these approaches, just a fraction of the revenue from a carbon tax would be enough to compensate low-income households. The rest would be available for other purposes—reducing the deficit, lowering the rates on other tax rates, or expanding other federal programs.

There is also another way to think about the effect of a carbon tax on the poor. Keep in mind that the reason for such a tax in the first place is the belief that carbon dioxide emissions are harmful to the environment. If so, it is just as true for the CO<sub>2</sub> emitted by the poor as by the rich.

We do not, as a rule, exempt poor people from restrictions on socially harmful behavior. We do not suspend rules against littering in public parks on the basis of income. We do not allow poor people to shoplift their food from supermarkets; we give them food stamps, instead. By the same token, it is reasonable to require poor people to behave responsibly toward the environment. If we are concerned that a carbon tax pinches the budgets of poor households, we should provide relief through other channels, not give them a pass on the need to conserve energy and reduce pollution.

### **We should protect the planet because we love it**

A third objection voiced by some progressives is that we should protect the planet because we love it, not for purely economic motives. Ethical objections to economic incentives are not limited to carbon taxes; they apply to all efforts to put a price on pollution, whether through taxes, marketable pollution permits, carbon offsets, or other mechanisms.

Harvard philosopher Michael Sandel, author of *What Money Can't Buy: The Moral Limits of Markets* (<http://us.macmillan.com/whatmoneycantbuy/MichaelSandel>), has expressed this view with particular force. All policies that rely on economic incentives, he says, pose the danger that those who pay a pollution tax, buy a carbon offset, or trade pollution permits are likely to consider themselves absolved of any further responsibility for climate change. Such incentives become “a painless mechanism to buy our way out of the more fundamental changes in habits, attitudes, and ways of life that may be required to address the climate problem.”

He applies his moral reasoning not just to individuals, but also to nations. Suppose that some wealthy country imposes a carbon tax or cap-and-trade mechanism. “Letting rich countries buy their way out of meaningful changes in their own wasteful behavior,” he says, “reinforces a bad attitude—that nature is a dumping ground for those who can afford it.” Whatever the efficiency of market-based mechanisms for combatting pollution, they “make it harder to cultivate the habits of self-restraint and shared sacrifice that a responsible environmental ethic requires.”

The best response to this ethical argument, in my view, is one made by Gernot Wagner in his book *But Will the Planet Notice*, cited at the beginning of this post. Here is what he writes in response to Sandel:

By all means, make the moral case. Teach it in philosophy classes and preach it from the pulpits, but let's not wait for it to have an impact while the planet burns.

By all means, declutter your life. . . Downsize your apartment. Carry around a canvas bag. Bike. . . But everyone else won't catch up to your good deeds voluntarily—not in time, and not with sufficiently strong action.

That's where economics enters the room There's simply no way to go about tackling this problem other than taking seriously the incentives all of us face. Getting several billion of us to behave differently—to behave morally—means guiding market forces in the right direction, making it in our interest to do the right thing. It's the only way to make the planet notice.

### The bottom line

The good news is that, despite initial skepticism, progressives are increasingly supportive of carbon taxes and other market-based environmental policies. Ironically, it is now conservatives who are more likely to reject them.

That is not to say that progressives have come around all the way. One sign of the sometimes half-hearted acceptance of market-based policies is an insistence on a belt-and-suspenders approach: Carbon taxes, marketable permits, or carbon offsets are acceptable as a supplement to existing command-and-control regulations, but not as a replacement for them. For example, a position statement from the [Sierra Club](http://www.sierraclub.org/policy/conservation/taxes.aspx) (<http://www.sierraclub.org/policy/conservation/taxes.aspx>) reads as follows:

The Sierra Club advocates the establishment of pollution taxes which would make it less expensive for a polluter to adopt alternative processes or invest in additional equipment to curtail releases to the environment than it would be for him to continue as before. Such taxes would supplement, and not replace, standards on maximum permissible emissions.

That attitude poses a significant barrier to the kind of coalition-building that will be necessary if progressive and conservative advocates of carbon taxes are ever to agree on mutually acceptable legislation. Conservative advocates of market-based environmental policy like it, in large part, because it would replace the mish-mash of grossly inefficient taxes and regulations that they see as shackles to business. To many of them, adding a carbon tax on top of CAFE standards, clean energy mandates, ethanol subsidies, and the rest would make matters worse—not only worse for the business environment, but worse for the physical environment.

In a rational world, there would be room for a win-win compromise. Conservatives could make concessions to progressives on the need to protect the poor, for example, by using part of the revenue from carbon taxes to lower payroll taxes. Progressives, in turn, could offer conservatives some relief from the red tape of overlapping mandates, subsidies, and performance standards. In exchange they would get market-based policies that have lower compliance costs, but are equally or more effective in cutting pollution. Whether such a rational compromise is possible in today's politically polarized America is, of course, another question.

*This is the second part of a series. The first part, "[Why Conservatives Should Love a Carbon Tax—and Why Some Do.](http://www.economonitor.com/dolanecon/2013/07/01/why-conservatives-should-love-a-carbon-tax-and-why-some-of-them-do/)" (<http://www.economonitor.com/dolanecon/2013/07/01/why-conservatives-should-love-a-carbon-tax-and-why-some-of-them-do/>) appeared last week. The third part, "[Why Libertarians Should Support a Carbon Tax—Even if they Can't Love It,](#)" will come soon.*

## Comments (19)



Jon · 14 weeks ago (#IDComment675644493)

0

I wasn't able to find the statistic, but what would be the effect on the mileage deduction for the government? Back of the envelope calculation shows that the mileage rate would go up about 6 cents. This assumes everything else stays the same and at the pump costs go up a dollar a gallon.



Tom (<http://intensedebate.com/profiles/tomkonrad>) 30p · 14 weeks ago +1  
(#IDComment675795371)

I agree that in elastic markets, a price mechanism like a carbon tax is the best approach to reducing consumption. But I don't think that you've effectively made the case that energy markets are elastic.

Start with the elasticity of gasoline consumption, which from the evidence you've put forward is about -0.4 to -0.7 in the long run, call it -0.5. That means for every 2% rise in the price of gas, we use 1% less of it, but only after a couple years delay (the "long run.") With the gas price at \$4, raising it to \$5 would only drop consumption about 12.5%. I think there may be less painful ways to reduce gas consumption 12.5%, such as increasing mandated fuel standards - the Union of Concerned Scientists calculated that the new CAFE standard would "save consumers \$140 billion in 2030. When compared to a typical vehicle on the road today, a new car buyer will save more than \$8,000 over the lifetime of a new 2025 vehicle, even after paying for the more fuel-efficient technology." So the CAFE standard bring a net economic benefit, while a carbon tax on fuel will raise total fuel costs even after reduced driving, since elasticity of fuel consumption is less than 1. Yes, a carbon tax's proceeds can be rebated to consumers, but that still leaves the net benefit at 0. This is an example of how regulation (even the mess that is CAFE standards) are superior to a carbon tax.

Now move to home energy consumption. It's clear that replacing incandescents with CFLs have long been one of the best investment a consumer can make, but penetration stayed stubbornly low, even with extensive utility subsidy programs.... until recently, when the energy Policy Act of 2005 (EPACT) mandated the phase-out of higher wattage incandescents. Again, because of the savings to consumers, we get an economic benefit from regulation where the price mechanism singularly failed to deliver.

A 2009 RAND study for SMUD: [http://www.climatechange.ca.gov/eaac/comments/2009-10-08 Sacramento Municipal Utilities District-Attachment 2.pdf](http://www.climatechange.ca.gov/eaac/comments/2009-10-08_Sacramento_Municipal_Utilities_District-Attachment_2.pdf) found that "The relationship between price and demand is small" for energy use, and that demand is inelastic to price. Their estimate of the short term price elasticity of demand was -0.2, and the long run elasticity was -0.32. Surely such an inelastic market warrants some regulatory intervention?

**12 replies (javascript: collapseThread(675795371);)** · active 13 weeks ago



tew · 14 weeks ago (#IDComment676446954)

0

You make an interesting point and bring us back to core microeconomics.

I do not think it's an either-or proposition between a carbon tax and some forms of mandate.

One problem with CAFE w.r.t. carbon is that it does not capture life cycle carbon and may not provide consumers an incentive to use lower carbon fuels.

I think CAFE should be seen as an effort to overcome imperfect information (recognizing the consumers are often poor calculators of total cost of ownership). The carbon tax is a better way of optimally reducing carbon emissions across the spectrum of activities.

I'm not sure what you mean by "a carbon tax's proceeds can be rebated to consumers, but that still leaves the net benefit at 0." What "net benefit" are you referring to?



(<http://www.economonitor.com/dolanecon/>) [EdDolan \(http://www.economonitor.com/dolanecon/\)](http://www.economonitor.com/dolanecon/) 72p · 14 weeks ago +2

(#IDComment678100819)

The "net benefit" in the MIT study is the so-called "double dividend" that results from an increase in energy efficiency plus decrease in deadweight losses from the tax system. You could think of it as a movement toward the national production possibility frontier from an interior point.



tew · 14 weeks ago (#IDComment678503159)

0

OK, I appreciate the clarification, but I don't see how you make the claim "a carbon tax's proceeds can be rebated to consumers, but that still leaves the net benefit at 0."

By "rebated to consumers" I can't imagine you mean rebating to each individual consumer that amount that consumer paid in new carbon taxes. That would make the carbon tax meaningless. It would be nothing more than an administrative deadweight. So you must mean that other taxes would be reduced such that net revenue to the government would be zero. That net revenue to the government is \*not\* the "net benefit" described by the "double dividend".

Per <http://www.nber.org/papers/w6199> (<http://www.nber.org/papers/w6199>) "The double-dividend hypothesis' suggests that increased taxes on polluting activities can provide two kinds of benefits. The first is an improvement in the environment, and the second is an improvement in economic efficiency from the use of environmental tax revenues to reduce other taxes such as income taxes that distort labor supply and saving decisions."

So the double dividend hypothesis is predicated on the government "rebating" to consumers the increase in carbon taxes.

So perhaps Tom meant something else by "net benefit"???



(<http://intensedebate.com/profiles/tomkonrad>) [Tom \(http://intensedebate.com/profiles/tomkonrad\)](http://intensedebate.com/profiles/tomkonrad) 30p · 13+1

weeks ago (#IDComment680355633)

Ed made a good point- I was wrong to put the net benefit of a carbon tax at zero. But that leaves my main point:

In an inelastic market (and many energy markets are very inelastic), this market response to a price signal such as a carbon tax will be limited, and hence the increase in energy efficiency and "double-dividend" will also be limited.

I agree with tew that the best approach would be the combination of a carbon tax and regulatory reforms... the best regulatory reforms would be ones that increase market efficiency, for instance better information for home buyers about the energy usage of new and existing homes. I think a large part of the reason that the market for gasoline is much more elastic than the market for residential electricity is that there is no "MPG sticker" for homes.

Regarding rebating the proceeds of a tax to consumers, most proposals discuss doing this on the basis of income, not energy use. This can be designed to counteract the regressive nature of a carbon tax.



tew · 13 weeks ago (#IDComment680414328)

0

Thanks for clarifying.

As for how the carbon tax rebate would work, I'm an advocate of a very simple flat tax credit to all households regardless of income. Take the amount of the carbon tax revenue and divide by the number of individual (household) tax filings. That's the tax credit for everyone filing. (Yes, adjust up and down for individual vs. married vs. number of dependents.)

This is very efficient and fair. Efficient and fair because there's no benefit to hiding income - the rewards to hiding income and assets are rising and that's not good. Also fair because energy use rises with income. Thus, higher income people are paying a higher proportion of the carbon tax bill, but getting proportionally less tax credit. The "regressive" problem is fixed simply.



(<http://sallan.org>) [Sallan Foundation \(http://sallan.org\)](http://sallan.org) · 14 weeks ago (#IDComment677138262)

0

I am a civilian, not an economist, but Tom seems right to draw a distinction between elasticity of price and car driving v price elasticity for energy needed to keep your house warm/cool and your computer/smart phone charged.

This means that carbon tax needs to be supported by laws setting energy efficiency/performance standards for buildings and their equipment, just like CAFE standards set energy performance standards for vehicles.

A carbon tax alone won't get us where we need to go.



(<http://www.economonitor.com/dolanecon/>) [EdDolan \(http://www.economonitor.com/dolanecon/\)](http://www.economonitor.com/dolanecon/) 72p · 14 weeks ago

0

(#IDComment678124492)

"This is an example of how regulation (even the mess that is CAFE standards) are superior to a carbon tax."

I do not agree with this assessment. Look at it this way: If the price of fuel went up, consumers could, if they chose, react entirely by purchasing higher-mileage cars, without changing their driving habits at all. In that case, a fuel tax (with full rebate of revenue to consumers), could not cost more than a CAFE standard that achieved the same fuel saving. If, instead, consumers chose to react to the fuel tax partly by changing the vehicles they drive and partly by driving less, that would be because such a strategy would cost them less. This suggests that the cost of a CAFE standard is the upper bound of the cost of saving a given amount of fuel through a combined strategy of changing vehicle mileage and changing driving habits.



(<http://intensedebate.com/profiles/tomkonrad>) [Tom \(http://intensedebate.com/profiles/tomkonrad\)](http://intensedebate.com/profiles/tomkonrad) 30p · 13 weeks +1

ago (#IDComment680359870)

Ed,

You say, "If, instead, consumers chose to react to the fuel tax partly by changing the vehicles they drive and partly by driving less, that would be because such a strategy would cost them less."

You are assuming that car buyers are homo economicus: that they have a good understanding of the discounted costs of their



car buying decisions. I think observation of consumer behavior shows that they are not. Why do so many people buy SUVs when they never go off road and never tow anything? Wouldn't a fuel-efficient minivan deliver the same carrying capacity at lower cost? On the other end of the spectrum, why are PHEVs and EVs such as the Volt, Leaf, and Tesla so popular? Do consumers really think they will recover the extra costs in fuel savings?

In other words, your statement assumes car buying is economically efficient. It is not, and that is why it's possible for clumsy regulations such as CAFE standards to create a net benefit.



[\(http://www.economonitor.com/dolanecon/\)](http://www.economonitor.com/dolanecon/) [EdDolan \(http://www.economonitor.com/dolanecon/\)](http://www.economonitor.com/dolanecon/) 72p · 13 weeks +2

ago (#IDComment680363969)

You are absolutely right that consumers are not "rational" in the sense that they buy the most transportation for the dollar. Yes, as marketers and behavioral economists know, they buy image too--the sizzle of an SUV or Tesla, not just the steak of a minivan.

Having said that, once they have made their purchase, they are still responsive to changes in the price of gasoline, no matter what kind of car they own. For example, suppose they have both an SUV and a minivan parked in their driveway--and many do. An uptick in gas prices makes it more likely they'll jump in the minivan for the next trip to the supermarket.

The bottom line: People may not be rational, in the sense of neoclassical economics, but they aren't stupid, either.



[\(http://intensedebate.com/profiles/tomkonrad/\)](http://intensedebate.com/profiles/tomkonrad/) [Tom \(http://intensedebate.com/profiles/tomkonrad/\)](http://intensedebate.com/profiles/tomkonrad/) 30p · 13 +1

weeks ago (#IDComment680399724)

Ed,

I'm not saying that drivers don't react to changes in gas prices (aka "they're stupid") ... clearly they do, since elasticity is around 0.5. My point is that this is a low elasticity, and only in markets with high elasticity can we rely solely on market forces to achieve the most economically efficient outcome.

The higher the elasticity, the more we should rely on price (and measures like a carbon tax) to increase economic efficiency. The lower the elasticity, the more we need to turn to regulation, despite its many drawbacks.

Elasticity of gasoline market is low (you quoted numbers between 0.2 and 0.6) so some regulation is called for. Elasticity of residential electricity demand is extremely low (0 to 0.3) so significant regulatory intervention is called for.

In both cases, a carbon tax will help, but regulation can ease the pain of transition by making the market more efficient, and mandating some changes which an elastic market would make on its own.

Further, I'm sure that you can think of many cases of people who don't react to changing gas prices as much as they would like to. An inefficient and illiquid housing market prevents most people from moving closer to work even if they want to, especially when jobs are increasingly short-term in nature. Our urban planning often forces car dependency, meaning that people who might like to switch to more efficient modes of transport, such as biking or mass transit are prevented from doing so by the lack of appropriate infrastructure. Since you quote Todd Litman in your article, you are most likely familiar with his many critiques of urban planning and the resulting economic inefficiencies.



[\(http://www.economonitor.com/dolanecon/\)](http://www.economonitor.com/dolanecon/) [EdDolan \(http://www.economonitor.com/dolanecon/\)](http://www.economonitor.com/dolanecon/) 72p · 13 +1

weeks ago (#IDComment680700179)

You say, "My point is that this is a low elasticity, and only in markets with high elasticity can we rely solely on market forces to achieve the most economically efficient outcome."

I think I understand where you are coming from--you are frustrated that consumers are not more sensitive to gasoline prices, and you would like to see them cut back more, so you want to use administrative means in addition to a tax. What I don't see is where you get from "I would like to see them cut back more (based on your preference)" to "the most efficient outcome" (based on the consumers own preferences when faced with a price that includes all cost.)

In standard microeconomic theory, the most efficient outcome occurs at the place where the value of the good to consumers, as measured by the price they are willing to pay for an additional unit, is equal to the marginal cost of the good, including all external costs. If we impose a tax that is equal to all external costs, and all internal costs are captured through the prices the producer pays for inputs, why isn't that the efficient outcome, regardless of whether elasticity is high or low?

To put it another way, are you saying that the point I describe (marginal value to consumer = marginal cost) is not efficient? Or are you just saying you think the tax I am talking about underestimates the true marginal external cost? Why exactly is it that you think it is efficient for consumers to reduce their use even further than the point where the marginal equality holds?

I am sorry I can't draw a diagram in this comment box; maybe that would help.



[Tom \(http://intensedebate.com/profiles/tomkonrad\)](http://intensedebate.com/profiles/tomkonrad)

+1

30p

*13 weeks ago (#IDComment680735711)*

That's very close to the point I'm trying to make. The difference is that I don't agree that standard microeconomic theory is correct. You ask the right question: "If we impose a tax that is equal to all external costs, and all internal costs are captured through the prices the producer pays for inputs, why isn't that the efficient outcome, regardless of whether elasticity is high or low?"

The answer is that consumers often do not have the knowledge or time necessary to respond in an efficient manner to market signals. A very low elasticity is a sign of market inefficiency.

Sticking to the example of the gasoline usage, many drivers drive around for long periods on under-inflated tires. This leads to excess tire wear, reduced road safety, and, more to the point, low gas mileage which could be easily remedied. But they don't properly inflate their tires because they don't know that they are under inflated. A 2011 white paper ([http://www.theicct.org/sites/default/files/publications/ICCT\\_tireefficiency\\_jun2011.pdf](http://www.theicct.org/sites/default/files/publications/ICCT_tireefficiency_jun2011.pdf)) ([http://www.theicct.org/sites/default/files/publications/ICCT\\_tireefficiency\\_jun2011.pdf](http://www.theicct.org/sites/default/files/publications/ICCT_tireefficiency_jun2011.pdf)) from the International Council on Clean Transportation states, "Optimal efficiency requires... maintenance of correct tire inflation... However, consumers are inadequately informed about how to adequately improve or maintain the tire efficiency of their vehicles." This lack of information is a classic market failure, and is unlikely to respond to price signals such as a carbon tax.

Suppose you add a carbon tax, and increase the price of driving on under inflated tires. "inadequately informed" drivers are not going to respond by properly inflating their tires- they are simply going to (grumpily) pay the additional tax and continue to drive around on under-inflated tires... because they don't know that there's a problem.

California's CARB mandates that whenever any auto service is performed, tire pressure is also checked, and the tires are inflated to the vehicle manufacturer's recommended pressure. [http://www.cncda.org/resources/A\\_Dealer\\_Guide\\_to\\_...](http://www.cncda.org/resources/A_Dealer_Guide_to_...) ([http://www.cncda.org/resources/A\\_Dealer\\_Guide\\_to\\_CARB's\\_Tire\\_Inflation\\_Regulations\\_8-31-10.pdf](http://www.cncda.org/resources/A_Dealer_Guide_to_CARB's_Tire_Inflation_Regulations_8-31-10.pdf))

This is yet one more example of a regulation which leads to a more economically efficient outcome (because it saves fuel at minimal cost) than a price signal such as a carbon tax. This problem is also being addressed by tire pressure monitoring systems which are now standard in many newer car models. Which do you think would be

more effective at ensuring the spread of tire pressure monitoring systems to more vehicles: increasing gasoline prices through a carbon tax, or giving auto manufacturers an MPG credit as part of CAFE rules?

I agree with you that a carbon tax will increase economic efficiency, but I don't think that it can achieve optimal economic efficiency alone. A carbon tax is part of the answer, but it needs to go hand in hand with regulation to improve market efficiency.



tew · 14 weeks ago (#IDComment676439914)

+1

Perhaps the worst of those three cited objections is the camp that has "ethical objections to the whole idea of bribing people to do things they ought to choose voluntarily". What twisted logic it must take to hold that position as a "progressive".

That position implies both a) the absence of externalities and b) perfect information. In other words, it's a "perfect market" ideal in which all consumers can internalize the cost of carbon and rationally determine their response. The same objection should be made against energy efficiency standards for appliances and autos.

Furthermore, such a moralizing mind set would have to object to programs such as affirmative action. Sure, it's mandate-based rather than tax-based, but shouldn't people just not be racist and hire people regardless of color, creed, etc?

Waiting for people to be perfect is a recipe for disaster. We need to accept people as they are, including their limited cognition and varying notions of ethics.



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57p · 14 weeks ago (#IDComment678026373)

Progressives and conservatives should be aware that the optimal tax on carbon cannot be evaluated separately from taxes on carbon substitutes that also have adverse side effects.

What if a tax on carbon, but no tax on wind farms, results in killing of birds and damage to beautiful mountain and beach views? What if mandates to use wood as a renewable fuel result in environmental damage from clear-cutting of forests? The net effect on the environment could be negative. These issues are not just hypothetical. They are being faced in North Carolina and other places today.

**1 reply (javascript: collapseThread(678026373);)** · active 14 weeks ago



(<http://www.economonitor.com/dolanecon/>) EdDolan (<http://www.economonitor.com/dolanecon/>) 72p · 14 weeks ago +2

(#IDComment678099591)

You are right to be concerned that wind, solar, and biomass alternatives each have their own negative externalities. Ozzie Zehner does a good job of cataloging these in the book linked in this post. I agree that in an ideal world, appropriate charges would be put on externalities from all sources, not just carbon. However, I am not sure I agree that introducing a tax on carbon-based fuels alone would necessarily exacerbate the situation.

First, I would strongly recommend that introduction of such a tax be accompanied by a phase-out of current subsidies and regulatory preferences for wind, solar, and biomass. If that were the case, I think the relative cost of those energy sources would not change much relative to carbon-based fuels.

Second, I think that a carbon tax of significant magnitude would strongly spur investments and behavioral changes leading to energy conservation. No new technologies are needed. Just moving toward today's average energy/GDP ratio for OECD countries would mean huge reductions in total US energy consumption. Even if wind, biomass, etc. increased their share of the energy mix (which is by no means certain if subsidies were ended), total energy produced from such sources would not need to grow.



Arno Arrak · 13 weeks ago (#IDComment680693010)

-1

Ed Dolan: you wrote three articles on carbon tax. They each deserve a comment.

Why are you pushing this insane tax on "carbon?" Carbon dioxide is not causing any warming today nor has it done so for the last 15 years as even Pachauri of the IPCC has admitted. In case you haven't noticed, there is more carbon dioxide in the air now than ever before and yet there is no sign of that alleged greenhouse warming it is supposed to produce. We are looking at a natural experiment set up by forces of nature that demonstrates its inability to warm the world. And I guarantee that it did not suddenly lose its ability 15 years ago but never actually caused any warming. The absence of greenhouse warming also follows from Ferenc Miskolczi's theory of saturated greenhouse warming. But you don't need his theory to come to the same conclusion by using simple physics. Laws of physics require that in order to start a greenhouse warming you must put carbon dioxide into the atmosphere at the exact same time. That is because the absorptivity of carbon dioxide in the infrared is a property of the gas and cannot be changed. If you want more absorption to increase warming you must put more absorbing molecules into the atmosphere. There were three occasions within the last 100 years when warming suddenly started. The first one was the early century warming which started in 1910 and stopped with WWII cooling. It raised global temperature by half a degree Celsius. The second one was in 1976 and was called the Great Pacific Climate Shift. It raised global temperature by 0.2 degrees and was finished by 1980. The third one was a step warming that accompanied the super El Nino of 1998. It raised global temperature by a third of a degree Celsius and then stopped. And this is it for the whole century. The only thing you need now is the Keeling curve and its extensions to determine what kind of warming it was. It turns out that none of these three episodes are greenhouse warming episodes because there was no increase of atmospheric carbon dioxide when they started. The Keeling curve and its extension are just featureless at these three critical temperature values. It is really hard for me to understand why any rational person can fall for the mindless destruction of civilized life in the name of saving the world from a non-existent danger. If Climategate did not teach you anything, here is one way you never heard of that was used to cheat us into believing in the global warming scam. In the eighties and nineties all ground-based temperature curves were showing a "late twentieth century warming." I compared it to satellite temperature curves and found that it simply did not exist. I complained about it in my book and demanded an investigation when the book came out in 2010. Nothing happened until last fall when GISTEMP, HadCRUT and NCDC suddenly decided to give up that phony warming and align their data for the eighties and nineties with satellites. I consider this concerted action tantamount to an admission that they knew the warming was fake. In the meantime, while it was official, it was referred to by people writing articles as proof of the existence of man-made warming because no one could find a natural cause for it. Man-made all right, cooked up in the back rooms of guardians of temperature. It is a scientific fraud and it is not sufficient to simply change the record without telling anyone about it and expecting to get away with it. But such is the character of people involved with the global warming enterprise that you are supporting.

**1 reply (javascript: collapseThread(680693010);)** · active 13 weeks ago



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(#IDComment680714036)

Arno: I invite you (and anyone else interested) to see my reply to your comment on the "conservative" variant of the post.