

Project Syndicate: The Way We Could Live Now

Now that the scientific "debate" about climate change has been put to rest, the conversation shifted to questions of technical and political feasibility. There are grounds for hope on both fronts, but much depends on whether we can dismantle the behavioral obstacles standing in the way of collective action, **writes Robert H. Frank for [Project Syndicate](#)**



Debates about climate change have finally moved past the mindless disputes with denialists. Most people now accept that we face a deadly challenge. Yet without a consensus about what to do next, we seem to have hit an impasse. Is rapid decarbonization actually feasible at any cost? If so, is there any prospect that voters would willingly bear that cost?

There are cautiously optimistic answers to both questions. On the issue of decarbonization, my own thinking has been heavily shaped by the work of the energy engineer Saul Griffith, who has argued persuasively that it's not too late to act. A World War II-scale mobilization to decarbonize the entire energy sector within the next decade through wholesale deployment of solar and wind energy would avert the worst consequences of global warming.

Electrifying the economy would also enhance the experience of everyday life

Building a carbon-neutral electrical energy sector in the United States would result in solar panels occupying about 1% of the country's total land area. Because there are substantial costs of transmitting electricity across long distances, these panels would need to be widely distributed in proximity to population centres. We will all have to get used to living in their midst.

Fortunately, electrifying the economy would also enhance the experience of everyday life. Radiant in-floor heating, for example, is much more comfortable in winter than forced-air heated by gas. Convection ranges facilitate better heat transfer and temperature control for cooking. Electric vehicles have more torque and better acceleration than those powered by internal-combustion engines. Griffith has described how these benefits can be realized through decarbonization. But, because his work is not widely known, many pundits insist that it's already too late to act. Don't listen to them.

A Consumption Arms-Control Agreement

The biggest question for any climate agenda, of course, is how to pay for it. Until now, decarbonization has largely been a project undertaken by the well-off, who, almost exclusively, have been the purchasers of solar panels, heat pumps, radiant heating systems, and electric cars. Climate goals will remain unattainable unless everyone else takes these same steps without further delay.

Griffith's proposed solution is to render decarbonization more affordable through financial innovation along the lines of the GI Bill, which made mortgage financing available to returning WWII veterans at below-market rates. But such measures won't alter the fact that rapid, widespread decarbonization is an enormously expensive proposition. A WWII-scale mobilization would cost several trillion dollars annually for much of the next decade.

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In principle, coming up with that much money is entirely feasible. Just a decade ago, Americans collectively earned several trillion dollars less per year less than they do today. Distributional issues aside, the real question is not whether Americans could manage satisfactorily with several trillion dollars less per year to spend on themselves – obviously, they can. It is whether taxpayers can be persuaded to part with that much money to pay for rapid decarbonization.

Here again, there are grounds for optimism. As political leaders love to say, "Never let a good crisis go to waste." The US is now facing not just the enduring threat of global warming, but also the more immediate challenges posed by the pandemic and insistent demands to address centuries of racial injustice. This congeries of crises may offer a once-in-a-lifetime opportunity to enact major

policy reforms.

In particular, the experience of the pandemic may spur a reconsideration of how we spend our money in advanced economies. As the entrepreneur, Andrew Wilkinson tweeted this past April: “Things that don’t matter right now: Clothes, shoes, watches, jewellery, cars. What’s the new status symbol during the lockdown?”

For the past 50 years, growth in US national income has accrued almost entirely to top earners and has been put largely toward increased private consumption. No one can deny that if we had instead spent the same money on renewable energy, hospital surge capacity, and medical research, we would have been much better equipped to confront both climate change and the coronavirus. Unfortunately, it was difficult to muster support for major spending changes when threats seemed remote.

But attitudes reliably shift in the face of more immediate threats. The pandemic has affirmed a central finding from the expansive literature on the determinants of human wellbeing: Beyond a point that has long since been passed in the West, further increases in many forms of private consumption have little impact on health or happiness. When everyone spends more on clothes, shoes, watches, jewellery, and cars, the effect is merely to raise the adequacy bar. Money saved from across-the-board reductions in the growth of many forms of private consumption would be more than enough to pay for the investments necessary to meet the most pressing challenges we now face. The clear implication of the literature is that shared cutbacks of this sort would be less difficult than many expect.

But when income growth resumes after the pandemic, people will not alter their spending patterns voluntarily, because individual and collective incentives diverge sharply, much as they do in a military arms race. Although a mutual escalation of arms spending typically does nothing to enhance collective security, knowing this rarely inhibits rival powers from stockpiling weaponry. To disarm, countries need enforceable agreements to be executed in unison. Consumption races are much the same, though they are between individuals rather than governments. Across-the-board cutbacks are much less painful than unilateral reductions in spending.

The desire to do as one pleases does not confer a right to cause undue harm to others

Shibboleths about individual liberty – “It’s my money, and I have a right to spend it as I see fit!” – also have made it more difficult to increase public investment. Such objections, which often ignore fundamental conflicts between specific rights, are akin to protesting that an arms-control agreement violates each country’s right to build as many bombs as it chooses. Well, of course it does; that’s the point.

The experience during the pandemic has also made clear that the desire to do as one pleases does not confer a right to cause undue harm to others. As John Stuart Mill, the West’s most eloquent champion of individual liberty, wrote, “the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others.” Whether unmasked persons intend to increase others’ risk of infection is beside the point. The harm itself is

what justifies mask requirements.

By the same token, many individual spending decisions cause unintended harm to others. Better schools attract more parents to their catchment areas, which are almost always located in more expensive neighborhoods. But that serves only to bid up housing prices. Once the dust settles, half of all students will still attend bottom-half schools, as before. Harm ensues even though no family intended to make it more expensive for others to send their children to good schools. Nor did families that spent lavishly on wedding receptions intend to cause harm by driving up the average (inflation-adjusted) cost of weddings more than threefold since 1980.

The Taxman Welcometh

Clearly, current spending patterns have not served us well as a society. But consumer behaviour will not change on its own. We need new incentives. The first place to start is with the tax code. A more progressive tilt to the existing tax structure would inhibit growth in private consumption while generating ample revenue for increased public investment and support for a more comprehensive social safety net.

We need new incentives

To be sure, wealthy voters have traditionally resisted such policies, believing that higher taxes would make their exceptional consumption harder to sustain. But that belief is based on a garden-variety cognitive illusion, one rooted in structural constraints that shape the brain's ability to process information. Life is complicated. We are bombarded by far more information each day than we can process consciously. To cope, our nervous systems employ various rules of thumb, which often operate beneath conscious awareness. They work reasonably well much of the time – but not always.

What happens when a high-income individual is asked to imagine the impact of higher taxes? Her first instinct – to summon memories of how she felt in the wake of past tax increases – comes up empty. If she is like most high-income people alive today, she has experienced top marginal tax rates that have consistently trended down since their WWII peak. During the war, the top marginal US tax rate was 92%. By 1966, when I graduated from Georgia Tech, it had fallen to 70%, and by 1982, it was 50%. The only significant increase came at the beginning of the Clinton administration; even then, rapid income growth for top earners meant that any after-tax decline in income was both small and brief. The top marginal rate is now just 37%. Similar long-term declines have occurred in other countries.

When Plan A fails, our well-off subject will go to Plan B. Because paying higher taxes means having less money to spend on other things, a plausible alternative cognitive strategy is to estimate the effect of tax hikes by recalling earlier events that resulted in lower disposable income: losing a lawsuit, say, or getting divorced, or suffering a health crisis. What these events have in common is that they reduce one's own income while leaving others' incomes unaffected. Such events are thus fundamentally different from an increase in the marginal tax rate, which reduces all incomes in tandem. This crucial distinction explains why people overestimate the pain of higher taxes.

As most wealthy people would themselves be quick to concede, they have everything anyone

could reasonably be said to need. If higher taxes pose any threat, it is to their ability to buy life's special luxuries. But, like a "good" school, luxury is an inescapably relative concept. To be special means to stand out in some way from what is expected. Almost by definition and without exception, special things are in limited supply.

There are only so many penthouse apartments with sweeping views of Central Park. To get one, a wealthy person must outbid peers who also want one. The outcomes of such bidding contests depend almost exclusively on relative purchasing power. And because relative purchasing power is completely unaffected when the wealthy all pay higher taxes, the same penthouses ends up in the same hands as before. (The threat of being outbid by oligarchs from abroad could be mitigated by transaction levies on foreign buyers.) In short, not even a rational libertarian should object to a tax hike that creates substantial benefits for virtually everyone without having to demand difficult sacrifices from anybody.

A Basic Messaging Problem

The problem, it seems, is that the attractiveness of a more progressive approach to taxation and spending has not been explained clearly to voters. A case in point is the failure to have enacted a carbon tax, despite compelling evidence that doing so would have improved life outcomes for virtually everyone. The planet is warming both because greenhouse gases are costly to eliminate and because we permit people to emit them into the atmosphere without penalty. If we had adopted a carbon tax decades ago, we would not be facing a climate crisis today. Even now, implementing one would substantially accelerate progress toward carbon neutrality.

So, what's the holdup? Pundits would say that carbon taxes are unpopular with voters. Because low and middle-income families already struggle to make ends meet, the last thing they need is a stiff new tax on energy. But this objection is easily parried. For starters, a disproportionate share of the revenue from a carbon tax would come from the wealthy. The top 10% of income earners account for almost half of annual global carbon dioxide emissions. Though energy-use patterns are less skewed in the US, wealthy Americans live in bigger houses, drive bigger cars, and take many more trips to distant destinations.

Most voters would actually receive more than they put in

In any case, even if energy use did not rise with income, it would be a simple matter to implement a carbon tax that not only spares struggling families from additional hardship but actually provides them with an economic windfall. Under one version of what economists call a revenue-neutral design, all proceeds from a carbon tax would be returned to voters in the form of monthly rebate checks. Whereas wealthy households with large carbon footprints would pay much more than they got back each month, most voters would actually receive more than they put in. And because the measure would make carbon-intensive activities more expensive, it would create powerful incentives to switch to cheaper, low-carbon alternatives.

The US today already encourages homeowners to install solar panels by providing costly subsidies that disproportionately benefit high-income households. In contrast, a carbon tax would automatically reduce the cost of solar power relative to fossil fuels, thereby creating the same incentive to install solar panels, but without the need for budget-burdening regressive subsidies.

While low-and middle-income families would be net financial beneficiaries under this scheme, affluent voters would also come out ahead, on balance. Not only would they benefit disproportionately from the resulting reduction in climate-related losses, but they also would be spared from having to shoulder the lion's share of the future tax burden from climate-adaptation measures.

Seeing a carbon tax as a threat to its interests, the fossil-fuel industry would, of course, oppose any such measure. In the months leading up to Washington State's 2018 carbon-tax referendum, oil and gas producers outspent the initiative's supporters by roughly four to one. But this challenge, too, is easily surmounted. For much less than his or her portfolio's daily interest earnings, a single billionaire could hire Pixar's best animators to produce a five-minute video explaining why a revenue-neutral carbon tax is a no-brainer. Not only would it leave 90% of families with more money to spend each month; it would also provide strong incentives for producers and families at all income levels to switch to clean energy sources.

How much exposure to this message would it take to convince voters? Because spending on ads is characterized by sharply diminishing returns, carbon-tax advocates wouldn't need to outspend the fossil-fuel companies; rather, they would need to spend only enough to ensure that their message was widely heard. That message, of course, should be well crafted. One lesson from behavioral science is that although people generally dislike taxes, most accept that it is fair to require fees for using a valuable resource, such as the planet's limited capacity to absorb carbon dioxide. So, rather than call for a revenue-neutral carbon tax, we would do better to call for a carbon fee and dividend program.

A Positive Pandemic

Finally, recent work in the social sciences provides still more grounds for optimism. Consider, for example, the effects of behavioural contagion – the tendency of ideas and conduct to spread from person to person in ways that resemble the spread of infectious diseases. Owing to contagion, the indirect downstream effects of any policy that changes individual incentives will typically dwarf the direct effect.

For example, according to one seminal early study, if a carbon tax induces just one additional family to install solar panels on its rooftop, a neighbouring household will follow suit within four months, on average. Let another four months pass, and each of these two will have spawned additional installations of their own, for a total of four. After two years, therefore, the initial installation will have led to 32 new installations just in that neighbourhood. And the contagion doesn't stop there, because each of the families responsible for installing solar panels will have shared news about them with friends and family in other locations.

Behavioural contagion also influences dietary choices, which have a major impact on climate. Earlier this year, US Senator Cory Booker of New Jersey was asked why he urges people to eat less meat rather than to become fully vegan, as he has done. He responded that simply reminding people of the reasons for eating less meat would result in a much larger reduction in overall meat consumption than if he pushed for a more radical dietary change.

The problem is social

The same logic applies to a revenue-neutral carbon tax. Most people eat meat because they were raised on it and continue to live among people who consume it in substantial quantities. Quite apart from any environmental concerns they may harbour, many of these same people recognize that their personal health would improve if they ate less meat. The problem is social. When meat-heavy diets are the norm among family and friends, it is difficult for individuals to cut back.

Because meat has a large carbon footprint, a revenue-neutral carbon tax would make it more expensive relative to plant-based foods. In most cases, the direct effect of this price incentive might be small. But if it induced at least some people to alter the composition of their diets in favour of plant-based foods, others would gradually find it easier to do so, too. Over time, such changes would be self-reinforcing. Behavioural contagion would likely produce dramatic shifts in eating habits, just as it has done with smoking.

My own study of behavioural contagion has led me to change my mind about the role of “conscious consumption” (individual actions to reduce one’s own carbon footprint) in the overall battle against global warming. Like most economists, I once viewed such steps as a distraction from the much larger challenge of marshalling massive investments in green energy and adopting stiff carbon charges. But having seen that the indirect effects of individual action can be orders of magnitude larger than the direct effects, I have abandoned that view.

You Are What You Do

More to the point, individual commitments are critical because they change who we are. Economists assume that we come into the world with fixed identities and preferences. But as Aristotle realized, it’s more accurate to say that we gradually forge our identities in the process of living our everyday lives.

Taking individual steps to reduce your carbon footprint reinforces your identity as a climate advocate. It makes you more likely to vote for candidates who support the policies that will halt global warming, and more likely to knock on doors to help get them elected.

Elections have consequences. In 2019, climate activists helped flip both houses of the Virginia state legislature. And this year, the state – hardly a hotbed of left-wing radicalism – enacted one of the most ambitious decarbonization bills in the country.

In this year’s election, there are many candidates who favor a continuation of the status quo, and many others who support long-neglected public investment and other policies to tackle our most pressing challenges. Our descendants’ future hinges on whether we let the crises our generation now confronts go to waste.

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