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Why Carbon Taxes Are Anti-Growth, Anti-Consumer, and Politically Dangerous for Conservatives

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A tax on carbon dioxide (CO₂) emissions, contrary to its advocates' claims, is a market-rigging policy, not a free market one. Its purpose is to drive investment into renewable energy sources not by lowering their cost or improving their performance but by handicapping competing technologies.

Carbon taxes would inflict substantial losses on GDP, job creation, and household income. Even the most aggressive CO₂ tax would have negligible climate effects, and costs would far exceed benefits. A realistic assessment of the potential economic damage must also consider the costs created by adding CO₂ taxes to a panoply of other policies targeting the fossil-fuel industry. A CO₂ tax would exacerbate rather than replace the costs of other less efficient climate policies.

The broader NetZero agenda, which aims to eliminate all U.S. CO₂ emissions beyond those absorbed by U.S. forests and other natural “sinks” by 2050, sets the stage for epic policy failure. The global mining and processing infrastructure needed to replace an energy system chiefly reliant on combustible fuels with one reliant on wind turbines, solar panels, and electric vehicles—which require much larger mineral inputs than conventional power generation and vehicles—do not exist. Moreover, the federal permitting system is too slow and litigious to allow completion of the hundreds of renewable energy projects required to replace all coal and gas power plants within 15 years *and* support massive vehicle electrification. The so-called clean energy transition could become a transition from abundant and affordable to scarce and unaffordable fossil fuels. A related potential downside is a growing dependence on Russia and OPEC for hydrocarbons and China for energy transition minerals.

Neither the “social cost” of CO₂ (SCC) nor the alleged “climate crisis” justifies imposing new taxes on fuels that supply 80 percent of U.S. energy. The SCC—a guesstimate of the cumulative climate damages from an incremental ton of CO₂—is too speculative and easily manipulated for political ends to justify either taxes or regulations that would impose hundreds of billions of dollars in costs across the economy. The climate crisis is a political narrative spun out of unrealistic models and emission scenarios, unreasonable pessimism about human adaptive capabilities, and sheer political hype.

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No enacted CO₂ tax would be either “revenue neutral” or deregulatory, even though some CO₂ tax proposals feature “fee-and-dividend” programs and suspend certain Clean Air Act (CAA) regulations. Moreover, revenue neutral is not the same as economically harmless. The Clean Air Act exemptions in a handful CO₂ tax bills are mostly minor, revocable, or ineffectual. Moreover, the carbon tariffs (“border taxes”) that U.S. firms would demand as protection from cheaper non-taxed foreign imports would expand federal regulation.

Enacting a CO₂ tax would be perceived as validating the climate crisis narrative, so would strengthen rather than tamp down demands for more radical policies. Conservative leaders who endorse CO₂ taxes risk destroying a prime political asset—pro-energy, low-tax policies that millions of Americans support.

Market-Rigging, Not Free Market. A tax on CO₂ uses prices rather than mandates to reduce emissions. However, that does not make it a free market policy. Cap-and-trade programs and renewable energy quota are just implicit CO₂ taxes. All such policies aim to pick energy market winners and losers. As President Obama put it, the point of pricing CO₂ emissions is to “finally make renewable energy the profitable kind of energy in America.”¹

A CO₂ tax aims to make renewables “profitable,” not by reducing their cost or improving their performance, but by handicapping competitors. It would directly increase the market prices of coal, oil, and natural gas, making those fuels, and any business that produces or uses them, less competitive. In all CO₂ tax proposals introduced during the 116th and 117th Congresses, the tax ratchets up on autopilot from year to year. Raise a CO₂ tax high enough, and once-thriving firms cease to be viable.

Anti-Consumer, Anti-Growth, and Environmentally Ineffective. The economic and humanitarian risks of a carbon tax are real and unavoidable. A former White House science advisor once observed, “Affordable energy in ample quantities is the lifeblood of the industrial societies and a prerequisite for the economic development of the others.”² In 2020, fossil fuels supplied 79 percent of U.S. and 83 percent of global energy.³ CO₂ taxes by design make the world’s most plentiful energy sources scarcer and less affordable. In the United States, CO₂ taxes would directly increase consumer and business energy costs, destroy jobs (especially in the energy and manufacturing sectors), and reduce economic growth and household income.

Estimating the energy market, consumer, and macroeconomic impacts of a CO₂ tax is beyond the scope of this paper. However, a recent Heritage Foundation analysis is worth summarizing, as the researchers used a model identical to the U.S. Energy Information Administration’s National Energy Modeling System (NEMS). The aim of the Heritage study, published in July 2019, was to estimate the economic impacts of the Green New Deal using a CO₂ tax high enough to achieve net-zero emissions by 2050. It analyzes the impacts of revenue-neutral CO₂ taxes enacted in 2020 and set alternatively at \$35, \$54, \$75, \$100, \$150, \$200, and \$300 per ton. The \$300 per ton tax achieves a 58 percent reduction in U.S. CO₂ emissions by 2050. To the analysts’ surprise, raising the tax to \$450 per ton does not produce additional emission reductions. However, the \$300 per ton tax would have severe economic impacts. Specifically, through 2040, it would:

- Cause an average annual shortfall of 1.2 million jobs, with a peak of more than 5.3 million jobs lost in 2023;
- Reduce the income of a typical family of four by nearly \$8,000 every year, or a total of more than \$165,000;
- Reduce cumulative GDP by \$15 trillion; and
- Increase household electricity expenditures by well over 30 percent.⁴

An August 2021 paper in *Nature Climate Change* estimates that a carbon tax would have to be set above \$1,500 per ton to almost achieve NetZero (95 percent decarbonization) by 2050. When the tax maxes out in 2050, the cost to the economy amounts to 11.9 percent of GDP.⁵ Statistician Bjørn Lomborg puts that number in perspective in an October 2021 *Wall Street Journal* op-ed:

Total expenditure on Social Security, Medicare and Medicaid came to 11.6 percent of GDP in 2019. The annual cost of trying to hit Mr. Biden’s target will rise to \$4.4 trillion by 2050. That’s more than everything the federal government is projected to take in this year in tax revenue. It breaks down to \$11,300 per person per year, or almost 500 times more than what a majority of Americans is willing to pay.⁶

Even a CO₂ tax set at the politically-infeasible levels of \$300 and \$450 per ton would avert only about 0.1°C of global warming and one centimeter of sea-level rise by 2100, according to standard U.S. Environmental Protection Agency (EPA) climate modeling.⁷ All the economic pain would produce no detectable effects on weather patterns, crop yields, polar bear populations or any other environmental condition people care about. The climate benefits from now to 2035 would be even more miniscule.

Destructive Interactions. A CO₂ tax need not be prohibitively costly to bankrupt otherwise viable companies. Even a “modest” CO₂ tax may scare away investors and lenders. Investors and banks tend to shun businesses perceived to lack assets of durable value. Capital and credit markets will accurately see the tax as a U.S. government effort to hasten fossil-fuel companies’ demise.

A death spiral is easily imagined. As access to capital and credit declines, stock prices fall, which further discourages investors and creditors. The companies are then hit with class action suits, congressional subpoenas, and indictments, with plaintiffs, lawmakers, and prosecutors claiming the firms defrauded shareholders by overpricing company assets. The adverse publicity and legal actions further restrict access to capital and credit, and so on.

The economic risks of CO₂ taxes cannot realistically be assessed in isolation from other interventions directed toward the same end. Firms weakened by such “co-morbidities” are less likely to withstand the stress of CO₂ taxes. By the same token, CO₂ taxes are likely to exacerbate rather than replace the already formidable economic risks arising from the NetZero agenda.

Climate policies recently adopted, proposed, or under consideration include:

- The Biden administration’s “whole of government” initiative to achieve net-zero emissions by 2050.⁸
- A “clean electricity standard” eliminating 80 percent of fossil generation by 2030 and 100 percent by 2035.⁹
- A Paris climate treaty pledge to reduce U.S. greenhouse gas emissions to 50-52 percent below 2005 levels by 2030.¹⁰
- A massive increase in subsidies for electric vehicles and charging stations.¹¹
- New restrictions on drilling and hydraulic fracturing.¹²
- New climate-focused bank lending standards.¹³
- New Securities and Exchange Commission climate risk disclosure requirements.¹⁴
- Repeal of tax provisions mislabeled as “fossil fuel subsidies.”¹⁵
- State government bans on the sale of new gasoline-powered vehicles.¹⁶
- An ozone rule that could function as a “backdoor” national ambient air quality standard (NAAQS) for CO₂.¹⁷
- An \$1,800 per ton tax on methane emissions.¹⁸
- Municipal government bans on fossil-fuel hookups in new homes and buildings.¹⁹
- President Biden’s Inauguration Day cancellation of the Keystone XL Pipeline.²⁰
- Congressional hearings,²¹ state attorney general investigations,²² and various domestic and international lawsuits aimed at blocking fossil energy production, transport, and use, or at collecting fines or reparations from fossil fuel companies for alleged climate damages.²³

Policy Failure Risk. A recent report by the International Energy Agency (IEA) reveals that the so-called clean energy transition is fundamentally a “shift from a fuel-intensive to a material-intensive energy system.”²⁴ For example, “A typical electric car requires six times the mineral inputs of a conventional car, and an onshore wind plant requires nine times more mineral resources than a gas-fired power plant.”²⁵ To reach Paris treaty goals, in 2040 the global economy will have to consume seven times more rare earth minerals, 19 times more nickel, 21 times more cobalt, 25 times more graphite, and 42 times more lithium than is consumed today.²⁶

The mining and processing infrastructure required to achieve that transition do not yet exist. The IEA estimates that it takes “on average over 16 years to move mining projects from discovery to first production.”²⁷ As technology analyst Mark Mills notes in a commentary on the IEA report, “Start tomorrow and new ETM [energy transition mineral] production will begin only after 2035. This is a considerable problem for the Biden administration’s plan to achieve 100 percent carbon-free electricity by 2035.”²⁸

The drawn-out, litigation-prone, U.S. permitting system is another roadblock. To achieve a NetZero electric system by 2035, U.S. policy makers will have to close 1,852 coal and natural gas power plants, or about 11 closures per month between May 2021 and January 2035.²⁹ Many of those power plants produce multiples of the electricity generated by solar power plants and wind farms. That means dozens of new renewable electricity facilities will

have to be built every month. As CEI analyst and Florida International University professor Mario Loyola notes, each new facility must be permitted, but “the federal government can barely manage to issue permits for a small handful of renewable-energy projects *every year*.”³⁰

The average time to complete the environmental impact statement (EIS) prerequisite to granting a permit is four and a half years, and the average for transmission projects is 7 years. Investment in new wind and solar generation particularly depends on the expansion of long-range transmission, because the best wind and solar generation resources are often far away from industrial or population centers.

Even when a permit is granted, litigation can drag on for years. Consider the Cape Wind Project, which aspired to be the nation’s first offshore wind project. Cape Wind Associates (CWA) applied for a permit in November 2001 and published its final EIS in December 2009. CWA faced unrelenting opposition and finally relinquished its lease in May 2018.³¹ More recently, local opponents motivated chiefly by aesthetic concerns quashed the \$1 billion Battle Born Solar Project in Nevada, which would have been the nation’s largest solar array.³² Local opposition to wind farms is widespread. Energy scholar Robert Bryce reports that, since 2015, about 300 government entities across the United States have rejected or restricted 317 wind energy projects.³³

The supposed transition from fossil fuels to renewables could instead turn out to be a transition from abundant and affordable to scarce and unaffordable fossil fuels. In this scenario, Congress and the White House tax CO₂ emissions and authorize regulations to phase out fossil-electric generation, gasoline-powered automobiles, hydraulic fracturing on federal land, and so on. They also pump trillion-dollar subsidies into the “clean energy” sector. However, due to permitting bottlenecks and the long lead times required to scale up mining and processing infrastructure, the supply of fossil energy decreases faster than the supply of zero-emission energy increases.

Geopolitical Risk. The NetZero agenda threatens America’s recently won global leadership in hydrocarbon energy production³⁴ and net energy-exporter status.³⁵ Decapitalizing and defunding domestic producers would reverse the dramatic decline in U.S. reliance on imported energy since 2005. America would become more reliant on Russia and OPEC for hydrocarbons.

At the same time, as noted above, the NetZero agenda would dramatically increase U.S. demand for energy transition minerals (ETMs) needed to build solar arrays, wind turbines, and battery storage for electric vehicles and renewable energy backup. China is among the world’s top three producers of copper, nickel, cobalt, rare earths, and lithium, and the largest processor of those minerals. The United States is not a significant processor of any ETM.³⁶ Reuters reported in June 2019 that it would “take years” for the United States and other countries to match China’s rare earths processing capacity of 220,000 metric tons, “which is five times the combined capacity of the rest of the world.”³⁷

Energy security concerns are often overblown. For example, it is impossible for OPEC to shut America out of the global oil market. Sanctions only achieve their punitive function

when applied globally and without exception; if a major party imposing the sanctions balks, the whole scheme falls apart.³⁸ Nevertheless, oil-price manipulation is more likely now than U.S. policy has ceded to OPEC its traditional role as the world's dominant petroleum producer.³⁹ It is also of concern that most of the world's hydrocarbon and ETM suppliers are state-owned or -directed enterprises under the control of authoritarian regimes.⁴⁰ Thus, the NetZero agenda could transfer trillions of dollars of wealth from U.S. energy producers and consumers to oligarchs and state-owned enterprises in Russia, OPEC, and China.

The Failed Rationale of Market Failure. The classic rationale for CO₂ taxes, as with any environmentally motivated tax, is that it would improve social welfare by correcting “market failure.”⁴¹ The basic idea is that CO₂ emissions yield harmful “externalities” in the form of climate-related damages, and that market prices fail to incorporate those alleged social costs. Consequently, societies consume more CO₂-emitting energy and associated products than would be the case if prices reflected all relevant costs.

Central to this rationale is the concept of the “social cost of carbon” (SCC), which may be addressed by a CO₂ tax imposed by supposed experts.⁴² Taxing CO₂ emissions at the SCC price would force all market actors to pay the full (economic + social) costs of CO₂-emitting fuels. Consumption would fall to “socially efficient” levels, improving social welfare. The problem with this rationale is that it assumes superhuman levels of knowledge and benevolence—experts skilled in predicting the future who never use their power for political ends. As a humorist might say, the market failure rationale for CO₂ taxes “assumes a can opener.”⁴³

SC-CO₂: Quick Background. The social cost of carbon is a dollar-amount estimate of the cumulative long-term damage caused by one ton of CO₂ emitted in a given year. That number also represents an estimate of the benefit of avoiding or reducing one ton of CO₂ emissions.

The federal government's interagency working group (IWG) on the social cost of greenhouse gases (SC-GHG) uses three computer programs, abbreviated DICE, FUND, and PAGE, to estimate the social cost of CO₂ emissions.⁴⁴ The programs are called integrated assessment models (IAMs) because they combine a climate model, which estimates the physical impacts of CO₂ emissions, with an economic model, which estimates the dollar value of climate change effects on agricultural productivity, property damages, and other economic variables.

In federal agency analyses, the cumulative damage of an incremental ton of CO₂ emissions is estimated from the year of the emission's release until 2300.

Assumption-Driven. The SCC is not an objective magnitude like the boiling point of water at sea level. Rather, it is a range of guesstimates that vary widely depending on numerous assumptions and inputs, many of which are speculative or subjective.⁴⁵ For example, definitive answers to the following key questions are not now and may never be available:

- What discount rates should be used to calculate the present value of climate damages and emission reductions out to the year 2300?
- How sensitive (reactive) is the climate system to greenhouse gas emissions?
- How will the global economy—the source of emissions—develop over the next 280 years absent new climate policies?
- What adaptive technologies will be developed as the world warms and how cost-effective will they be?

SCC values differ widely depending on the variables used to calculate them. In the Biden administration’s February 2021 interim SC-GHG report, the central SCC estimate starts at \$51 per ton in 2020 and rises to \$85 per ton in 2050.⁴⁶ In contrast, a January 2020 study by Kevin D. Dayaratna of the Heritage Foundation, Ross McKittrick of the University of Guelph in Ontario, and Patrick J. Michaels of the Competitive Enterprise Institute found that when the FUND model is run with updated empirical information about climate sensitivity⁴⁷ and the agricultural benefits of atmospheric CO₂ fertilization,⁴⁸ the SCC has a greater than 45 percent probability of being negative, through the mid-21st century, even when discounted at 2.5 percent.⁴⁹ A negative cost is another way of saying a net benefit.

Much higher probabilities of negative SCC estimates would result if the FUND model were run with realistic baseline emission scenarios. The IWG runs the three IAMs—FUND, DICE, and PAGE—with four so-called business-as-usual (BAU) scenarios in which coal use scales up rapidly and dominates global energy consumption not only in the 21st century but also during the 22nd and 23rd centuries. For example, in one reference scenario, cumulative CO₂ emissions reach 22,024 gigatons in 2200 and 33,023 gigatons in 2300—multiples of total estimated fossil reserves (3,674 – 7,113 gigatons). To even approach such massive cumulative emissions, University of Colorado Professor Roger Pielke, Jr. observes, “the world would have to make it a policy goal to burn as much coal as possible over the coming centuries. That seems unlikely.”⁵⁰ Pielke, Jr. reasonably opines that in publishing SCC estimates based on such woefully inflated emission baselines, the Biden IWG “failed its first scientific integrity test.”

False Rationale: Existential Threat. The most influential rationale today for a coerced decarbonization of the economy is the “climate crisis” narrative—the claim that climate change threatens the survival of civilization and the habitability of the Earth. This planetary emergency perspective ostensibly does away with the need for accurate measurement of CO₂-related externalities. In its extreme form, it dispenses with cost-benefit analysis altogether. Whatever combination of policies gets us to NetZero by 2050 must be pursued, regardless of cost.⁵¹ This rationale is a product of overly sensitive climate models, inflated emission scenarios, disregard of empirical evidence, unreasonable pessimism about human adaptive capabilities, and plain old political hype.

Improving State of the World. If climate change were a global ecological crisis, we would expect to find evidence of declining health and well-being over the past 50 to 70 years. Instead, we find dramatic improvements in life expectancy,⁵² per capita income,⁵³ food security,⁵⁴ and various health-related metrics.⁵⁵ Yields of all major food crops have kept increasing since at least 1960,⁵⁶ 2.9 billion people gained access to improved water sources

since 1990,⁵⁷ and deaths from malaria (the most consequential climate-sensitive disease) declined by 52 percent between 2000 and 2015.⁵⁸

Decreasing Mortality Risk and Declining Relative Economic Impact. If climate change were an existential threat, we would expect to see long-term increases in deaths due to extreme weather and weather-related losses as a percentage of GDP. Instead, we find the reverse. Since the 1920s, global CO₂ concentrations increased from about 305 parts per million (ppm) to more than 410 ppm, and average global temperatures increased by about 1°C.⁵⁹ Yet, globally, the number of people dying from storms, floods, droughts, wildfires, and extreme temperatures decreased from about 472,000 per year in the 1920s to a projected 6,600 in 2021. “That’s almost 99 percent less than the death toll a century ago,” observes Bjørn Lomborg. Weather-related mortality rates have dropped even more dramatically, as the global population has quadrupled over the past 100 years.⁶⁰

Absolute numbers of weather-related damages have increased in recent decades. However, that is due to population growth, ongoing economic development in coastal areas and flood plains, and rising property values. A May 2019 peer-reviewed study by European scholars Giuseppe Formetta and Luc Feyen reports that climate-related hazards show a “clear decreasing trend in both human and economic vulnerability, with global average mortality and economic loss rates that have dropped by 6.5 and nearly 5 times, respectively, from 1980–1989 to 2007–2016.”⁶¹

No Discernible Greenhouse Fingerprint in Hurricanes. Since 1900, there has been no trend in the strength or frequency of U.S. landfalling hurricanes. Consistent with that finding, there has been no trend in U.S. hurricane-related damages once losses are adjusted for increases in population, property values, and the consumer price index.⁶² Globally, there has been considerable inter-decadal variability but no trend since the early 1970s in tropical accumulated cyclone energy, or ACE, a metric of hurricane strength integrating the intensity, duration, and number of storms.⁶³

Wildfires in Perspective. A warmer climate tends to increase wildfire risk and lengthen fire seasons.⁶⁴ In California, average annual temperatures have been rising since the 1980s.⁶⁵ However, global warming’s relative contribution to California’s increasingly destructive fires is far from clear.

Multiple factors increase wildfire risk in California. Those include drought due to internal climate variability (that is, weather),⁶⁶ decades of forest mismanagement that have allowed dangerous buildup of fuel loads,⁶⁷ rapid population growth in the wildland-urban interface,⁶⁸ the decline of livestock grazing on grasslands,⁶⁹ and inadequate public utility investment in fire safety measures.⁷⁰ The latter factor, as a December 2019 *Wall Street Journal* special report noted, is partly a consequence of California regulators being “too focused on turning the state into a leader on climate change and renewable energy to focus on safety or compliance.”⁷¹

Autumn and winter Santa Ana winds (SAW) propel some of the state’s most destructive wildfires, such as the 2018 Camp Fire that destroyed the town of Paradise. A July 2021

study published in *Science Advances* finds that temperatures during SAW fires and precipitation in the week or month prior “play a minor role in determining area burned.” Indeed, 100 percent of the SAW fires were due to human ignitions, and during the past decade, “powerline failures have been the dominant cause.”⁷² Ironically, in some climate models, global warming is projected to decrease the intensity of Santa Ana winds.⁷³

Whatever the influence of global climate change on California’s fire regime, the world is not turning into an inferno. Globally, total area burned by wildfires declined in every decade from the 1940s to the 2000s.⁷⁴ That trend continues. NASA satellite data show a 25 percent reduction since 2003 in the global annual number of square kilometers burned.⁷⁵

Taxing CO₂ emissions to mitigate wildfire risk would be a costly exercise in futility. Even a \$300 per ton CO₂ tax would avert only 0.1°C of global warming by 2100. To the extent that climate alarm diverts attention and resources from more effective fire safety investments, campaigning for CO₂ taxes would be counterproductive.

Spinning Disaster: Fourth National Climate Assessment. Every four years, the U.S. Global Change Research Program (USGCRP) produces an assessment of present and future climate impacts and risks in the United States. The most recent installment is the Fourth National Climate Assessment, published in November 2018.⁷⁶ Media and activist group commentary focused on one graph in the 1,656-page tome. The big takeaway, supposedly, is that unchecked warming ends in catastrophe and “continued inaction” is the costliest climate policy of all. In fact, the graph (p. 1,360) does not demonstrate anything of the kind.

The New York Times, CNN, the Sierra Club, and others interpreted the graph to mean that inaction would lead to 8°C of global warming and result in a 10 percent contraction of the U.S. economy by century’s end.⁷⁷ That is not what the graph shows. Examining the graph’s assumptions reveals there is virtually no chance of global temperatures rising by 8°C.

The USGCRP used an ensemble of climate models called CMIP5, which on average hindcasts (a method of testing mathematical models) a warming rate of 0.44°C per decade in the 300-200 hPa layer (about 30,000 to 40,000 feet altitude) in the tropics since 1979. The average observed warming rate from satellites, weather balloons, and re-analyses⁷⁸ is 1.5°C per decade—roughly one third the model average.⁷⁹ A reasonable inference is that most CMIP5 models overestimate climate sensitivity and project too much warming from whatever emission scenario is fed into the models.⁸⁰

Like the IPCC and literally thousands of other climate impact studies,⁸¹ the National Assessment ran the CMIP5 models with an emission scenario called RCP8.5.⁸² Although billed as a business-as-usual baseline, RCP8.5 is a high-emission, worst-case scenario. It projects more emissions than 90 percent of other “no policy” 21st century emission scenarios.⁸³ For perspective, RCP8.5-projected CO₂ emissions in 2050 are more than twice the levels forecast by the International Energy Agency in its baseline emission scenarios.⁸⁴

Here is what the *New York Times* and other media missed. Even when run with the warm-biased RCP8.5 forcing trajectory, the warm-biased CMIP5 ensemble projects 8°C of

warming in only 1 percent of model runs. That means the probability of an 8°C warming in 2100 is substantially less than one in 100.

The implausibility of the National Climate Assessment’s worst-case scenario is neither discussed in the text, nor is it implied in the graph or the descriptive caption. However, the original version of the graph in the study cited (by Solomon Hsiang of the University of California, Berkeley and colleagues, published in *Science* in 2017), makes crystal clear that warming reaches 8°C in only one out of 100 model runs.⁸⁵ Could that be why the USGCRP chose to “adapt” the graph rather than simply reproduce it?

Probing further, we find that the economy of the 2090s probably would not shrink by 10 percent even if warming reached 8°C. The fine print explains that the graph “shows projections of direct damage to the *current U.S. economy* for six impact sectors (agriculture, crime, coasts, energy, heat mortality, and labor) as a function of global average temperature change (represented as average for 2080–2099 compared to 1980–2010).” [Emphasis added]⁸⁶ So, the graph on page 1,360 does not actually project what 8°C of warming would do to the U.S. economy at century’s end but what it would do to “the current U.S. economy.”

In all likelihood, the U.S. economy in 2080-2099 will be substantially larger than today. Consider that real U.S. GDP in the fourth quarter of 2020 was 8.5 times larger than it was in the first quarter of 1950.⁸⁷ If the U.S. economy only triples in size over the next eight decades, damages equivalent to 10 percent of current GDP would have a relative impact of 3.3 percent in 2100.

The fine print also reveals that the RCP8.5-based damage projections “only capture adaptation to the extent that populations employed them in the historical period,” i.e., during 1980-2010. The assumption that adaptive investments and technologies will remain frozen at 1980-2010 levels for the next 90 years despite rapid warming, increasingly frequent or intense weather events, and rising per capita incomes is highly unrealistic and further undermines the credibility of the Assessment’s worst-case damage estimate.

Ignoring Adaption: Sea-Level Rise. Underestimating humanity’s remarkable capacity for adaptation is hardly unique to the National Climate Assessment. For example, the PAGE model that the IWG uses to estimate the social cost of carbon assumes that adaptation cannot mitigate the impacts of climate change beyond 2°C of warming and 10 inches of sea-level rise.⁸⁸ Such pessimism regarding human ingenuity flies in the face of the improving state of the world, discussed above.

Sea-level rise inundating coastlines and destroying millions of homes is the scariest part of the climate crisis narrative. Again, the same “hot” models and RCP8.5 baseline underpin worst-case (4-6 feet) sea-level rise projections.⁸⁹ However, even if valid, those scenarios would not make growth- and job-killing CO₂ taxes a smart policy, for two reasons.

First, as noted, a \$300 per ton CO₂ tax would avert only 0.1°C of global warming and one centimeter of sea-level rise by 2100, based on EPA modeling. The tax would cause significant economic pain for no discernible protection from sea-level rise.

Second, adaptation can provide substantial cost-effective protection from sea-level rise. However, adaptation is not free, and societies with stronger economies are more likely to invest in adequate amounts of protection.

In his book *False Alarm*, Bjørn Lomborg provides a telling example of how adaptation can take the “existential threat” out of sea-level rise. A 2014 study by European researchers published in the *Proceedings of the National Academy of Sciences* includes a worst-case RCP8.5 warming scenario in which sea levels rise six feet and flood up to 350 million people every year by century’s end, with costs reaching \$100 trillion or 11 percent of global GDP annually.⁹⁰ However, those extraordinary damages are projected to occur only if people do nothing more than maintain current sea walls.

If “enhanced” adaptive measures are taken, flood costs increase from \$11 billion in 2000 to \$38 billion in 2100. Similarly, dike costs increase from \$13 billion to \$48 billion. However, Lomborg notes, “the total cost to the economy will actually decline, from 0.05 percent of GDP to 0.008 percent.” Moreover, the number of people experiencing flood damages drops from 3.4 million in 2000 to 15,000 in 2100—a 99.6 percent reduction. In other words, with adaptation investments that keep pace with sea-level rise, people are projected to be much safer, and the global economy much less affected by coastal flooding in 2100, despite high-end warming.⁹¹

Hyping 1.5°C. The IPCC’s *Special Report on Global Warming of 1.5°C* has fostered the impression—wittingly or not—that achieving NetZero by 2050 is a moral imperative because warming beyond 1.5°C is potentially catastrophic. However, nowhere does the report use the terms “climate crisis,” “climate emergency,” or “existential threat.” Far from treating 1.5°C as a point beyond which humanity dare not go, the IPCC estimates that in a “no-policy baseline scenario, temperature rises by 3.66°C by 2100, resulting in a global gross domestic product (GDP) loss of 2.6%.”⁹² A 2.6 percent drop in global GDP is undesirable, but very far from posing an existential threat. Indeed, in the IPCC’s five socioeconomic development scenarios, global GDP in the 21st century is projected to grow to between 600 and 1,800 percent of its current size.⁹³ A global economy 600 percent larger than today’s minus 2.6 percent would still make for a much more prosperous world than we inhabit today.

Not Revenue Neutral. Many CO₂ tax bills include “fee and dividend” programs that would rebate some portion of the revenues to American households. However, given Washington’s untamed spending ambitions, we should not expect any enacted CO₂ tax to reduce other taxes by an amount equal to expected revenues. Rather, large portions of the revenues would likely fund “investments” in infrastructure, health care, and other political priorities.

The current fiscal situation weighs heavily against enactment of any sort of “revenue-neutral” tax. The fiscal year 2021 deficit is projected to reach \$3.003 trillion, or 13.4 percent of GDP. That follows on the heels of 2020’s record-breaking peacetime deficit of \$3.129 trillion, or 14.9 percent of GDP.⁹⁴ It is hard to imagine Washington’s big spenders and deficit hawks (often the same people) agreeing to raise a trillion dollars in new CO₂-tax revenue just to return it to taxpayers.

Unsurprisingly, four of the five CO₂ tax bills introduced in the 117th Congress provide for new spending and financial support for various purposes, especially infrastructure modernization, energy transition assistance, and environmental justice. A brief summary follows:

- The **America’s Clean Future Fund Act (S. 685)**, introduced March 10, 2021 by Sen. Richard Durbin (D-IL), would provide \$50 billion in clean energy “investments” before the Treasury receives any CO₂ tax revenues. Ten-year total spending could be substantial, although no figure is given in the bill text.⁹⁵
- The **MARKET CHOICE Act (H.R. 3039)**, introduced May 7, 2021 by Reps. Brian Fitzpatrick (R-PA) and Salud Carbajal (D-CA), would “invest” 100 percent of the tax revenues in federal programs, including the Highway Trust Fund (70 percent) and State compliance with Section 203 of the Voting Rights Act (10 percent). (The acronym stands for “Modernizing America with Rebuilding to Kickstart the Economy of the Twenty-first Century with a Historic Infrastructure-Centered Expansion.”)⁹⁶
- The **America Wins Act (H.R. 3311)**, introduced May 18, 2021 by Rep. John Larson (D-CT), aims to spend \$1.2 trillion on “clean” transportation over 10 years.⁹⁷
- The **Save Our Future Act (S. 2085)**, introduced June 16, 2021 by Sen. Sheldon Whitehouse (D-RI) aims to spend \$475 billion on “clean” transportation over 10 years.⁹⁸
- The **Energy Innovation and Dividend Act (H.R. 2307)**, introduced April 1, 2021 by Rep. Ted Deutch (D-FL), is the only CO₂ tax bill introduced in the 117th Congress that would return 100 percent of revenues (minus administrative expenses) to individuals.⁹⁹ However, that does not make it a wise measure, as explained in the next section.

Revenue Neutral Does Not Mean Economically Harmless. Even if a CO₂ tax did cut other taxes dollar for dollar, its overall impact on the economy would still be negative. The smaller the base on which a tax of a given size is levied, the more detrimental the impacts on investment, employment, and consumer prices. For example, imposing a \$200 billion tax hike on the motion picture industry would destroy more businesses and jobs, and more severely rattle investor confidence, than would a \$200 billion hike in combined personal and corporate income taxes.

The base for a CO₂ tax—a set of specific commodities and companies—is narrower than the base for income taxes, payroll taxes, or retail sales taxes. Consequently, the diffuse benefits of so-called fee-and-dividend programs would not offset the damage inflicted by CO₂ taxes

on energy producers, energy-intensive manufacturers, and the immediately impacted state and local economies.

Moreover, distributing carbon dividends is not the same as reducing tax rates. One need not even be a taxpayer to receive carbon dividends. Fee-and-dividend is a tax-and-spend welfare program. The government extracts hundreds of billions of dollars annually from specific industries, and then distributes the revenues to households on a prorated basis. That is a share-the-wealth scheme in green garb. The more “generous” the dividends, the more the program weakens the vital link between risk and reward.

The only revenue-neutral CO₂ tax that might improve overall economic performance is one in which all revenues are dedicated to corporate tax relief. That would encourage business investment in human and physical capital, which would boost productivity and wages.¹⁰⁰ However, cutting corporate and capital gains taxes is not among the administration’s goals.

Instead, the Biden administration proposes to raise corporate and capital gains tax rates to the highest levels in the OECD.¹⁰¹ That would result in less investment, a smaller capital stock, reduced worker productivity, and lower wages.¹⁰² Adding CO₂ taxes to the Biden tax hikes would aggravate the latter’s detrimental effects on growth and competitiveness.

Illusory Deregulation. A grand bargain in which conservatives and progressives agree to tax CO₂ emissions and repeal greenhouse gas regulations is a fairy tale. At least eight CO₂ tax bills introduced in the 116th Congress would not have suspended any Clean Air Act (CAA) GHG regulations.¹⁰³ Four House bills in the 116th Congress purported to suspend GHG regulation under CAA sections 202, 211, 213, and 231.¹⁰⁴ Those sections deal with light-duty vehicles, motor fuels, off-road vehicles, and aircraft, respectively. Only one CO₂ tax bill in the 117th Congress—the Market Choice Act—proposes a “moratorium” on GHG regulation under the aforementioned CAA provisions.

The ostensible deregulatory provisions in the five CO₂ tax bills are little more than window dressing. Here is why.

1. None of the five bills suspends EPA regulation of stationary source GHG emissions. The agency would be free to replace the vacated Trump administration Affordable Clean Energy (ACE) Rule with more stringent power plant standards and impose GHG performance standards on other industrial source categories.
2. The EPA may regulate GHGs under the mobile source provisions (CAA Sections 202, 211, 213, and 231), provided it does not regulate them “based on greenhouse gas effects.” However, the EPA “may consider the collateral benefits of limiting emissions because of their greenhouse gas effects.” So, as long as climate change mitigation is not the *stated* primary purpose, the EPA may use those provisions for that purpose.
3. The five bills require the EPA to reimpose GHG regulations 10 years after enactment if, in the agency’s estimation, the suspended provisions would achieve larger emission reductions than the CO₂ tax.

4. The Market Choice Act allows the EPA to continue regulating GHG emissions from new motor vehicles under CAA Section 202, and all five bills direct the EPA to “grant a waiver under CAA section 209(b).” In other words, the bills would reinstate California’s power to regulate and prohibit tailpipe CO₂ emissions.
5. The Market Choice Act allows the EPA administrator to set CO₂ standards for large commercial jet airplanes under CAA Section 231, provided those are not more stringent than standards adopted by the International Civil Aviation Organization (ICAO). That provision basically reaffirms the regulatory status quo. The EPA already enforces the ICAO standards—a policy supported by U.S. airlines, as it ensures their hassle-free operation in other ICAO member countries.¹⁰⁵
6. Finally, all five bills state that the regulatory moratorium “shall not preempt or supersede” any state law or regulation. Therefore, covered entities could be hit with new federal CO₂ taxes plus state regulations equivalent to or more stringent than the suspended EPA regulations.

Increased Regulation. To prevent domestic CO₂ taxes from creating “unfair” trade advantages for foreign producers, most proposals include a system of “border taxes” and rebates. The border taxes are CO₂ tariffs on goods imported from countries lacking equivalent penalties on fossil energy use. The rebates allow domestic manufacturers to avoid double CO₂ taxation of their exports. Such border adjustments may sound straightforward, but estimating the carbon intensity of trade in goods is more complex than proponents usually acknowledge.

Most jurisdictions with climate policies do not explicitly price carbon or do so for only some commodities. Variations in regional, local, and even company-specific production processes may yield different carbon intensities independently of differences in national policy. Thus, establishing “fair” CO₂ tariff rates is no easy feat.

The difficulty of doing so in real time is compounded by international supply chains. A product imported into the U.S. might incorporate inputs from firms in several countries with diverse policy regimes. Supply chains can change rapidly, as happened during the pandemic.

American Enterprise Institute economist Benjamin Zycher cautions that a new or expanded IRS would be needed to develop, administer, and audit compliance with rules for calculating and reporting the CO₂ intensities of goods in trade. Paired with border taxes and rebates, which are its logical correlate, a CO₂ tax could saddle U.S. businesses with a new regime of intrusive regulation.¹⁰⁶

Winning Hearts and Minds. Some Republican politicians and business groups claim supporting a carbon tax is smart politics because “you can’t beat something with nothing.” They argue that America will end up with more extreme climate policies unless conservatives get behind a CO₂ tax.

That reasoning is mistaken on many levels. First, Presidents Obama and Biden, Democratic leaders in Congress, agency officials, climate campaigners, and renewable energy lobbyists

have never made a serious proposal to swap federal and state greenhouse gas regulations and large spending programs for a CO₂ tax. Why would they? Those policies are far more effective than a CO₂ tax in transferring wealth to favored constituencies and expanding the regulatory industrial complex they largely control.

Second, because a CO₂ tax is less effective than other climate policies at hiding the costs of emission reductions, it repels more voters than it attracts. Democratic political strategists understand this well. Hillary Clinton never campaigned for a CO₂ tax, even though the 2016 Democratic Party Platform stated that “carbon dioxide ... should be priced to reflect negative externalities.”¹⁰⁷ Her campaign manager Robby Mook explained why in a June 2015 email to press secretary Brian Fallon: “to be clear, it’s lethal in the general, so I don’t want to support one.” Clinton campaign chairman John Podesta put the point more harshly: “We have done extensive polling on a carbon tax. It all sucks.”¹⁰⁸

That has not changed. A February 2021 survey of 1,000 voters nationwide conducted by MWR Strategies found widespread opposition to the costs of “climate action.” When participants were asked how much they would be willing to pay each year to address climate change, the median response was \$20. When asked about their willingness to pay for 100 percent renewable power the median response was \$10. Sixty-two percent of respondents said the federal government should not impose a tax on CO₂ emissions.¹⁰⁹ In a September 2021 Competitive Enterprise Institute poll of 1,200 registered voters, four out of 10 respondents said they were unwilling to spend more than \$1 annually in higher gas and electricity prices to mitigate the effects of climate change.¹¹⁰

Third, there is a genuine conservative alternative to trillion-dollar climate regulatory and spending programs. It is the free market agenda of unshackling the U.S. economy, including its energy sector. No material force on earth has done more to improve human well-being than wealth creation and technological innovation supported by plentiful, reliable, affordable energy, most of which still comes from fossil fuels.¹¹¹ Republican advocacy of CO₂ taxes would not undercut political pressure for climate regulations and subsidies. Rather, it would be construed as validating the climate crisis that supposedly demands such policies.

Fourth, endorsing CO₂ taxes is politically perilous for conservatives. The struggle for hearts and minds is to no small degree a contest between a pro-energy and anti-tax vision and a pro-tax and anti-energy one. The clear difference between conservatives’ pro-growth energy agenda and progressives’ deep decarbonization agenda is a significant political advantage for conservatives, and was a critical factor in candidate Donald Trump’s surprise victory over Hillary Clinton in the 2016 presidential election.¹¹²

In 2009, assorted academics and corporate lobbyists warned conservatives that their only chance of defeating the American Clean Energy and Security Act (ACESA, H.R. 2454, 111th Congress), commonly known as the Waxman-Markey cap-and-trade bill, was to advocate a CO₂ tax. ACESA passed in the House, seemingly confirming that advice. But ACESA’s passage proved to be a pyrrhic victory. Critics successfully branded ACESA as a “cap-and-tax” bill that would impose a stealth tax on energy. The bill quickly became

radioactive, and was a major factor in Republicans gaining control of the House in the 2010 midterm elections.¹¹³

Conclusion. The social cost and climate crisis rationales for a CO₂ tax collapse upon inspection. The tax would not be revenue neutral in practice. It would supplant few, if any, GHG regulations. Due to its inevitable pairing with border tariffs and rebates, it could spawn new paperwork burdens, audits, fines, and litigation. The real costs that CO₂ taxes would impose on the economy would greatly exceed the undetectably small climate benefits. A high-end CO₂ tax would be counterproductive, impeding the wealth creation essential to social resilience and adaptation. The larger NetZero agenda will likely fail, with America transitioning from affordable to unaffordable fossil fuels and with Russia, OPEC, and China gaining new leverage over our economic future. Conservative policy makers will end up hurting themselves, and their constituents, if they provide bipartisan cover for an anti-growth, anti-consumer, market-rigging energy tax.

Notes

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² John Holdren, "Meeting the Energy Challenge," *Science*, February 9, 2001, p. 945. Quoted by Robert L. Bradley, Jr., "The Heated Energy Debate: John Holdren's Attack on Bjørn Lomborg's *The Skeptical Environmentalist*," Competitive Enterprise Institute, June 25, 2003, <https://cei.org/studies/the-heated-energy-debate/>.

³ U.S. Energy Information Administration, "U.S. primary energy consumption by energy source, 2020," <https://www.eia.gov/energyexplained/us-energy-facts/>. BP *Statistical Review of World Energy 2021*, p. 11, <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2021-full-report.pdf>. U.S. and global reliance on fossil fuels may be higher in 2021, as the world bounces back from pandemic-induced demand destruction. Noah Browning and Bozorgmehr Sharafedin, "Fossil Fuel Demand Shakes Off Pandemic in Blow to Climate Fight," *Reuters*, October 4, 2021, <https://www.reuters.com/business/energy/fossil-fuel-demand-shakes-off-pandemic-blow-climate-fight-2021-10-04/>.

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⁶ Bjørn Lomborg, "Biden's Climate Ambitions Are Too Costly for Voters," *Wall Street Journal*, October 14, 2021, <https://www.wsj.com/articles/climate-change-cost-economy-emissions-tax-per-person-net-zero-joe-biden-11634159179>.

⁷ Dayaratna and Loris, *Ibid.*, Chart 6.

⁸ White House, FACT SHEET: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad, Create Jobs, and Restore Scientific Integrity Across Federal Government, January 27, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/27/fact-sheet-president>

biden-takes-executive-actions-to-tackle-the-climate-crisis-at-home-and-abroad-create-jobs-and-restore-scientific-integrity-across-federal-government/.

⁹ Scott Voorhis, “Clean electricity standard lands spot in \$3.5 trillion Democratic-backed infrastructure deal,” *Utility Dive*, July 15, 2021, <https://www.utilitydive.com/news/clean-electricity-standard-lands-spot-in-35-trillion-democratic-backed-in/603363/>. During the reconciliation debate, NetZero proponents dropped the CES, a regulatory mandate, in favor of a carrots-and-sticks policy called the Clean Electricity Performance Program (CEPP), which would use subsidies and penalties to increase the percentage of non-emitting U.S. electric generation from about 40 percent today to 80 percent by 2030. Elewina Czapla, “Reconciliation and the Clean Electricity Performance Program,” *Insight*, American Action Forum, September 21, 2021, <https://www.americanactionforum.org/insight/reconciliation-and-the-clean-electricity-performance-program/>. Both the CEPP and carbon taxes now appear to be off the table in the current budget cycle. Proponents may press for those policies again in the 118th Congress, if not in 2022.

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 - 2) The Climate Framework for Uncertainty, Negotiation, and Distribution (FUND) model, developed by University of Sussex economist Richard Tol and UC Berkeley data scientist David Anthoff, <http://www.fund-model.org/>; and
 - 3) The Policy Analysis of the Greenhouse Effect (PAGE) model, developed by Cambridge University economist Chris Hope, <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/wp1104.pdf>.
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