

HOW THE UNITED STATES CAN DO MUCH MORE ON CLIMATE AND JOBS

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Key Points

- We Americans need to and can do much more to stabilize the climate and improve our economy.
- The 2017 US administration and Congress should work urgently to build bipartisan support for a carbon-fee-and-dividend (CFD) law, which would enact a rising fee on coal, oil and gas production and imports, and send the revenue to American households through equal monthly dividends.
- By the twentieth year, this law would cut US carbon emissions by twice as much as promised in the United States' 2015 pledge to the United Nations, while simultaneously expanding the US economy and improving Americans' health.
- New legislation is possible. Business and the public have shifted. The kernel of a winning bipartisan coalition has emerged in each house of Congress.
- This remedy has the best chance of passing Congress because it embodies core values of both conservatives and progressives. CFD will benefit most US economic sectors and occupations. CFD is more likely than any other legislative option to survive repeal attempts.
- Situations of hostility and distrust have occurred before. Leaders in some situations have reached agreements on particular issues while continuing to fight over others. US leaders should reduce political risks by recruiting a broad coalition of economic, environmental, health and faith organizations to support a historic bill.

Introduction: The United States Must Do More

The need for more ambitious steps to stabilize the planet's climate is urgent. In 2014 the number of extreme, destructive climate events worldwide was four times the number recorded in 1980 (World Energy Council 2015). During 2015 the average concentrations of heat-trapping carbon dioxide (CO₂) and methane in the earth's atmosphere increased even faster than they had in the previous decade, according to the US National Oceanic and Atmospheric Administration (NOAA). Global average temperatures and sea levels have been rising at accelerating rates and faster than modellers had forecast. "We're dialing up Earth's thermostat in a way that will lock more heat into the ocean and atmosphere for thousands of years," says NOAA leader Jim Butler (quoted in Berwyn 2016). Military leaders such as US Admiral Samuel Locklear III, commander in chief of US Pacific Forces, warn that these changes are also undermining international security (Bender 2013).

The 2015 Paris Agreement of 195 parties under the United Nations Framework Convention on Climate Change improved the framework for multilateral cooperation. It was the first UN climate agreement that obliged every nation



About the Fixing Climate Governance Project

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Climate scientists agree that human activity has been changing our planet's climate over the long term. Without serious policy changes, scientists expect devastating consequences in many regions: inundation of coastal cities; greater risks to food production and, hence, malnutrition; unprecedented heat waves; greater risk of high-intensity cyclones; many climate refugees; and irreversible loss of biodiversity. Some international relations scholars expect increased risk of violent conflicts over scarce resources due to state breakdown.

Environmentalists have been campaigning for effective policy changes for more than two decades. The world's governments have been negotiating since 1995 as parties to the United Nations Framework Convention on Climate Change (UNFCCC). Their 2015 Paris Agreement represents a historic new platform for international cooperation. It is the first UN climate agreement obliging all member states to make concrete contributions to address the problem. Yet important details of this new regime remain to be negotiated. The members' pledges still must be implemented. And it is widely agreed that, if implemented, their 2015 pledges alone will not be sufficient to meet the need identified by science or to achieve their own agreed goal of stopping global warming well below 2°C.

The Fixing Climate Governance project is designed to contribute fresh ideas to the global debate. High-level workshops have developed a set of policy briefs and short papers written by experts from multiple countries and disciplines. The first nine works were published in 2015. Some offer original concrete recommendations for making the UNFCCC more effective. Some propose diverse other ways to improve climate governance. The ideas in two of the 2015 publications were implemented in Paris. New publications, taking stock of recent conditions and research and looking forward on multiple levels, appear as they are completed.

to make some concrete contribution. But it is widely recognized that the nations' 2015 pledges fall far short of what is needed to head off widespread catastrophes.¹

The leading national emitter of greenhouse gases (GHGs), by historical accumulations, is the United States. We Americans also continue to emit the second-largest amount of new carbon pollution each year. While the European Union's emissions today are 20 percent below those of 1990, the United States' are greater than in 1990. Emissions per person in the United States remain extremely high — double those per person in China, Japan and Western Europe, and several times greater than those per person in India.²

A number of US states have implemented a patchwork of measures to reduce carbon pollution in their jurisdictions (Brewer 2015). The Obama administration, after a second rejection of national cap-and-trade legislation in 2010, took substantial new federal steps — more than any previous administration — using current law. These steps include the Clean Power Plan for the electricity sector, which is under legal challenge. But even if all these steps are implemented, they are not enough. Climate Action Tracker, a consortium of respected non-governmental research institutes, rated the United States' 2015 UN pledge as only “medium,” not consistent with the agreed aim to limit global warming to less than 2°C.³ Like other nations, the United States must do more, and soon.

CFD: Effective and the Most Likely to Pass

Fortunately, the United States *can* do much more, in its own interest and to lead the world. The CFD solution would accomplish much more on climate, health and jobs, and this approach has the best chance of passing Congress and surviving repeal attempts. The plan, advocated by Citizens Climate Lobby, a non-partisan volunteer organization,⁴ has three main parts. First, the US Treasury would collect a fee from US coal, oil and natural gas producers and importers at the upstream end, equal in the first year to \$15 per ton of CO₂ emitted by the fuel. Each subsequent year the fee would rise by \$10 per ton. Second, the Treasury would send all the revenue (after administrative costs) directly to American households in equal per capita monthly dividends.

Alone, these two steps might eventually create a rising cost disadvantage for US producers in international trade, and

1 See, for example, the analysis prepared by Climate Interactive (2016), a non-profit organization based in Washington, DC.

2 See Ge, Friedrich and Damassa (2014); for the 1990 comparison, see Eurostat Statistics Explained (2016) and US Environmental Protection Agency ([EPA] 2016).

3 See climateactiontracker.org.

4 See citizensclimatelobby.org. The author is a member.

hence stimulate the export of jobs and import of goods, or at least fears of such effects, which could block the law's passage. To address these fears, the third step would be to include a border adjustment. The law would authorize a special duty on imports from countries lacking equivalent carbon pricing, to be equal to the cost increases at home due to the carbon fee. The US Treasury would pay an analogous rebate on exports going to those countries. If the adjustment is designed carefully to avoid arbitrary or unjustifiable discrimination in trade, there are substantial grounds for expecting that the Appellate Body of the World Trade Organization would uphold it.⁵

This rising carbon price would reduce US CO₂ emissions in the twentieth year to about 52 percent below what would occur otherwise, and to about 50 percent below 1990 emissions, according to simulations by a respected US private consulting firm (Nystrom and Luckow 2014). This cut is more than double the reduction pledged in the United States' 2015 Intended Nationally Determined Contribution based on current law, comparing each projection against 1990 emissions.⁶ Americans would also avoid about 230,000 premature deaths due to air pollution during the first two decades. Moreover, CFD would *expand* the US economy on balance. In year 20 the United States would have about 2,800,000 more jobs and the GDP would be \$80 billion to \$90 billion larger than if Congress does not pass it.

Why will this plan work? Starting the fee low and writing the increases into federal law will give investors and consumers predictability and time to plan. The rising fee will make the prices of carbon fuels, and goods and services made or transported with them, reflect the full costs of their pollution to society. All large and small US players will have steadily rising incentives to make millions of decisions through the years that will collectively shift the economy away from carbon on the huge scale needed.

Meanwhile, the rising dividends will stimulate consumer spending in every congressional district for the next generation. For a household of two adults and two children, the dividend would start at about \$45 per month, and by year 20 it would reach almost \$400 every month in 2012 dollars. As consumers

spent dividends, they would expand businesses and jobs directly and indirectly in many sectors.

This proposal has the best chance to pass Congress because it embodies key values of both conservatives and progressives. Sixty-eight percent of registered American voters support the approach.⁷ Conservatives can support it because it does not increase regulations, subsidies or government spending. Once the rising fee becomes law, market competition will determine which technologies and firms win. The fee-dividend structure is simple, easy to audit and not easy to rig through later lobbying. Nor should principled opposition to new taxes block this fee. Normally, a tax means a way of financing government, but here the government does not keep the money. Prominent critics of excessive government, such as former Secretary of State George Shultz, recommend this approach. Conservatives who value better health and larger national income can favour CFD for those reasons — even if they do not believe in climate change.

Progressives can support CFD because the dividend offsets the costs of the energy transition for low- and middle-income families. A majority of households, and virtually all low-income ones, will probably receive more in dividends than they pay in higher prices due to the fee. This is because low-income people tend to have much smaller carbon footprints than high-income people. Proposals lacking a dividend are less attractive in this respect. Economy-wide CFD also will achieve far greater abatement than has been possible with sector-specific regulations and states' efforts.

Good arguments can be made for other proposals but none is as promising politically. Carbon fee revenue could be used to reduce taxes, which would be attractive for Republicans who prefer tax cuts in general. But this model risks driving Congressional Democrats away. Persuading liberals to trust markets rather than additional regulations and subsidies will be a challenge. Adding tax cuts, too, might sink the ship.

Liberals propose that Washington spend carbon tax revenue for a variety of meritorious ends such as infrastructure and clean energy deployment. This model risks keeping Republican members opposed. To conservatives, new spending and cap and trade look like more "big government." Members of both parties are needed, and each party will probably need to compromise a bit to achieve its main goals, as usual.

This system is also more likely than any alternative to survive repeal attempts. A policy that achieves a climate-safe society must operate for decades. Efforts to repeal it can be expected: "Vote for me — I will fight that tax that is raising your costs." But if voters are receiving a dividend every month, the program will, like public pensions, generate a huge constituency willing to vote against candidates who threaten to take away their

5 See Horn and Mavroidis (2011); Pauwelyn (2012); Hillman (2013). If a challenge in Geneva under article I, II or III of the General Agreement on Tariffs and Trade (GATT) proved successful, GATT article XX also provides exceptions for measures "necessary to protect human, animal or plant life or health," and for measures "relating to the conservation of exhaustible natural resources." The Appellate Body has upheld trade-restricting environmental and health measures by citing article XX. The Appellate Body has ruled that clean air is an exhaustible natural resource. For a less sanguine view emphasizing uncertainties, see Holzer (2014).

6 Climate Action Tracker estimates that the pledged US contribution would reduce all US GHGs by 12 to 19 percent below 1990 levels by 2025. (Official US statements project larger percentage cuts but those are measured from 2005 emissions, which were higher than those of 1990.) On CFD, Nystrom and Luckow (2014) simulate only CO₂ emissions and project a drop of 31 percent from 1990 levels by 2025 and 50 percent by 2035. 1990 levels are from the US EPA (2016, Table 2.1).

7 See Leiserowitz et al. (2016b). This survey item read, "Require fossil fuel companies to pay a carbon tax and use the money to reduce other taxes (such as income tax) by an equal amount."

dividends. If instead carbon tax revenue were used to reduce other taxes or spent on less visible programs, many voters would fail to associate their added after-tax income or services with the carbon fee. Fewer voters would defend it; repeal attempts would more likely succeed; all Americans and the world would suffer.

Bipartisan Legislation Is Possible

Many appear to believe there is no hope of agreement in Washington on even this centrist proposal. Partisan distrust is strong there. Top leaders of the major parties, including their 2016 presidential nominees, have positioned themselves on opposite sides of this issue. Republican Donald Trump promises to undo the steps already taken. Democrat Hillary Clinton promises more executive steps, although her emissions target is no lower than the one in the US 2015 pledge.

Beneath the headlines, however, things are changing. Americans including some Congressional Republicans want stronger action. Large majorities say more or much more should be done to address global warming by the Congress (60 percent), citizens themselves (66 percent) and corporations and industry (71 percent). Sixty-one percent say the United States should reduce its GHG emissions regardless of what other countries do. When asked how they would vote if a candidate for president strongly opposed action to reduce global warming, only 13 percent of respondents said they would be more likely to vote for the candidate, while 43 percent said they would be less likely — a four to one margin (Leiserowitz et al. 2016a).

In US business a major split has opened, with large companies increasingly demonstrating to politicians that shifting to a low-carbon world makes business sense — although too slowly to save a livable world, because they see no reliable national price on carbon. Wal-Mart has put solar panels on many of its buildings. In 2010, Google began signing large-scale contracts to purchase wind and solar electricity, aiming to go 100 percent renewable. In 2015, General Motors, Apple, Amazon, Cisco and Facebook joined this market (Clark 2015).

In 2014, the Rockefeller Brothers Fund announced a commitment to divest from fossil fuels to preserve their capital. The largest public pension fund in the United States — the California Public Employees Retirement Fund — has pledged, with global institutional investors managing a total of \$10.3 trillion, to publish the carbon footprint of its portfolio and press its companies to reduce their emissions and climate risks.⁸

With shareholders and customers asking questions, companies are responding. In 2015, 154 firms in the United States — including Alcoa, Kellogg's, Ikea, PG&E, Siemens, Target, UPS, Bank of America and Goldman Sachs — called for a strong Paris agreement and pledged new steps to reduce their emissions

or increase green lending (The White House 2015). Auto firms are accelerating development of electric vehicles (Boston 2016). Airlines are experimenting with biofuel (Lowenberg 2016). General Motors, Disney, Procter & Gamble and more than 1,000 other companies have signed the Climate Declaration, a project of the Coalition for Environmentally Responsible Economies (Ceres), affirming that tackling climate change is one of America's greatest opportunities of the twenty-first century.⁹

Even Exxon-Mobil is recommending a revenue-neutral carbon tax. In 2009, CEO Rex Tillerson said: "I firmly believe it is not too late for Congress to consider a carbon tax as the better policy approach for addressing the risks of climate change. Indeed, there has never been a more opportune time for Congress to pursue this course of action" (Tillerson 2009). In 2016, Exxon ramped up its lobbying of other petroleum companies to support a carbon tax (Harder and Olson 2016).

Prominent Republicans have urged more ambitious action. These include former Treasury secretaries George Shultz and Henry Paulson and all four living Republican former directors of the EPA. In 2015, conservative businessman Jay Faison spent \$175 million to convince the Republican Party to find a solution using market principles. Veteran Republican operative Michele Combs said: "I see the tide turning. The young people and the young generation, they want this issue and they understand this issue" (cited in Goode 2015).

In September 2015, just before Pope Francis implored Congress to act, 11 Republican representatives introduced a resolution calling on the House to address climate change.¹⁰ In October 2015, four Republican Senators formed an Energy and Environment Working Group for similar goals. The December Paris Agreement undermined the argument that other countries will not do their part.

Most significant, in February 2016, House Republicans and Democrats launched a bipartisan Climate Solutions Caucus. At latest count, it has 10 members from each party; they are meeting, and the caucus's leaders expect it to grow. The Republicans include the influential former chair of the Committee on Foreign Affairs, Ileana Ros-Lehtinen. In July, 33 House Republicans joined 184 Democrats to defeat an amendment that would have eliminated funding for EPA climate and energy research (Keck 2016). The kernel of a bipartisan winning coalition has emerged in each house of Congress.

How to Get It Done

Situations of great hostility and distrust have occurred before, such as between Mao Zedong's China and Richard Nixon's America. Research has shown how, in some cases, leaders have

⁸ See, respectively, www.rbf.org/about/divestment and www.calpers.ca.gov/page/newsroom/calpers-news/2014/montreal-carbon-pledge.

⁹ See www.ceres.org/declaration.

¹⁰ The number signed on had risen to 15 by October 6, 2016.

de-escalated conflicts and eventually reached agreements on some issues while continuing their rivalry on others (Odell and Tingley 2016). Internationally, the successors to Mao and Nixon stood together in China in 2016 and announced their nations' acceptance of the Paris climate accord. Domestically, leaders of the British Conservative, Labour and Liberal Parties agreed to de-link climate from their partisan battles and enacted the Climate Change Act of 2008, which put Britain on a carbon budget leading to an 80 percent cut in GHGs by 2050 and was legally binding on future governments (Giddens 2011). During their 2015 election, all three parties remained faithful to that deal while hitting one another hard on other issues.

American political leaders should do the same. Soon after the 2016 elections, the new administration and Congress could begin tacitly, like Nixon and Mao, by halting public verbal attacks over this one issue. The other side should signal with reciprocal silence on this issue and send positive feelers.

Leaders can reduce political risks by recruiting a broad coalition of economic, environmental, health and faith organizations to work on and lobby for a historic bill, to be introduced jointly by Republican and Democratic members of Congress. Foundations have already been laid. Non-partisan organizations such as the Partnership for Responsible Growth and Citizens Climate Lobby are working for related proposals. Think tanks have studied alternative policy designs. Networks for collaboration between US environmental, business and investor groups are operating — for example, through the Environmental Defense Fund, Ceres and the Center for Climate and Energy Solutions.

One front of the campaign could focus on interests suffering from climate impacts. Another front could recruit business and labour organizations that will benefit from the transition. Carbon fee and dividend will benefit or not harm most US occupations and sectors — not just solar and wind energy. CFD will *increase* GDP and employment in construction, retail and wholesale businesses, health care, finance and insurance, real estate, telecommunications, accommodation and food services, education, and entertainment and recreation. Manufacturers who make vehicles, food, beverages and furniture will gain. The net impact on total manufacturing, apart from petroleum refining and chemicals, is close to zero. The manufacturing and farm lobbies should also be shown how the border adjustment will help them. This transition will require a few sectors to shrink over the years, as in earlier transformations. But very few *occupations* will see net declines. Metal workers, production supervisors, truck drivers, and marketing, human resources and finance workers in shrinking sectors will be needed in expanding sectors. The economic net for the country is overwhelmingly positive (Nystrom and Luckow 2014).

This is so even before adding the benefit of avoiding increasingly severe costs to business, health and international development and security from uncontrolled climate change — which, after all, is the central reason to enact the law. These frightening

risks have been estimated concretely for each region of the United States.¹¹

This bold CFD plan with no time limit can be an opening move in a legislative negotiation. To win sufficient votes, leaders could add a linked measure to help the relatively disadvantaged minority to adjust. For instance, Congress could establish a Carbon Adjustment Fund to disburse redevelopment grants in response to proposals from US counties unusually dependent on production of fossil fuels or carbon-intensive goods or services, and grants to qualified workers for retraining and moving expenses. Congress could finance this fund from general tax revenues at first, and later by phasing out subsidies for all fuels at the same percentage rate. Then coal miners and oil workers would have two types of direct help they do not get now: rising dividends plus carbon adjustment funds. Modifications of the CFD bill itself to increase Congressional support could also be imagined.

No Time Left to Lose

While many other issues rightly demand Washington's attention, climate change is fundamental. It is already intensifying many other challenges — diseases, the economy, poverty, budget deficits, conservation, migration pressure, global security — offsetting remedies aimed at them.

Politicians will face political risks in following this advice. But so did UK politicians a decade ago, and Nixon and Mao four decades ago, and they managed their risks. American leaders will expose their families and businesses to much greater risks if they delay taking sufficient national action for another four years. In 2016 alone, more “rain bombs” hit China, South Carolina, West Virginia, Texas, Louisiana and Wisconsin, and hundreds more people died.¹² The US public wants more help and favours this approach. It will expand, not harm, the economy. New legislation is possible. Leaders with foresight and courage will be hailed by their children, most Americans, the rest of the world and history.

11 See Riskybusiness.org.

12 See Floodlist News (2016), Erdman (2016) and Robertson and Blinder (2016).

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