



Addressing Climate Change:

# The Politics of the Policy Options

The U.S. Climate Task Force



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(The views expressed in this paper are the Author’s only.)

# Addressing Climate Change: The Politics of the Policy Options

## Introduction

It often takes a long time for a policy issue to get to the point where all the complex factors required for change through the American political process come together. Take health care. President Harry Truman advocated universal health care for all Americans in the late 1940s, universal health care was provided for senior citizens and the poor in 1965, and now we are well into the 21st century and still arguing about whether and how to guarantee health care coverage for all Americans.

It has been 30 years since scientists introduced the problem of global warming into the American political dialogue. More than a generation later, the news from the polar ice caps grows worse with each passing year. Environmental disruptions, extreme weather events, species extinction and new and more powerful germs are frequent topics in the news; and as a result, public awareness and concerns have increased. Although scientists cannot predict exactly when a “tipping point” will occur and the changes in our atmosphere from greenhouse gases will become irreversible, a scientific consensus has formed that we must begin to act now if we are to avoid profoundly damaging changes in weather patterns and sea levels that would disrupt countless ecosystems, threaten many low-lying parts of the world, and profoundly affect weather patterns. In short, solving the climate change crisis cannot take another 30 years.

But there are daunting political problems to be dealt with in solving the climate challenge — and in the past year, the economic crisis facing the United States and the world has made some of those problems even more intractable. This paper looks at the politics of the climate change crisis, in the hope that a better understanding of these dynamics will enable policymakers to avoid some of the political pitfalls and act both quickly and responsibly.

## Some Recent History

While the climate change problem has been with us for several decades, the possible solutions have recently come to the forefront of the political debate. Climate change was initially raised in Congress in the late 1970s, when then

## A LexisNexis search of major U.S. newspapers in the last three years of the 1970s yields just over 100 articles on climate change.

Congressman Al Gore held the first hearings on global warming and its effects on the climate. Then, with the exception of a number of administrative initiatives, the issue languished for much of the next two decades. A LexisNexis search of major U.S. newspapers in the last three years of the 1970s yielded just over 100 articles on climate change. (The same search covering the last three years produced more than 1,000 hits.) The first front-page New York Times story on climate change appeared in 1981. While there was sparse polling on climate change in the 1970s and 1980s, a 1981 poll found that less than half of the public had heard of the greenhouse effect and of those, only 37 percent thought it was “somewhat serious.”<sup>1</sup> The discovery of the ozone hole in the atmosphere by British scientists in 1985 and subsequent international action in Montreal helped to establish for many people the concept that human activity is, in fact, an influence on climatic conditions, an important step forward. A few years later, the climate expert James Hansen’s testimony before Congress during an extremely hot spell in Washington was widely covered and thrust the issue into newspapers around the country.

Even so, climate change continued to encounter problems penetrating the American political agenda. Unlike prior environmental concerns and the popular movements they inspired, cause and effect in climate change are not immediately observable. In earlier instances of environmental

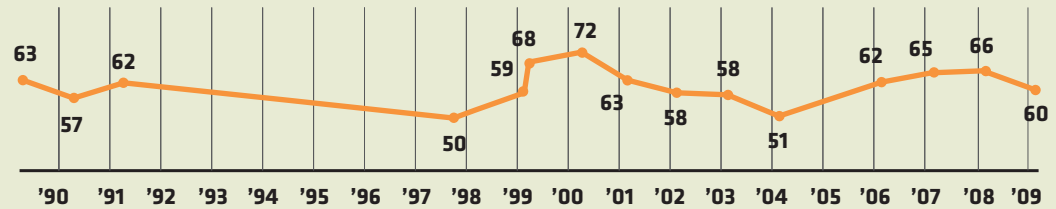
<sup>1</sup> Opinion Research Corporation poll, May 1981, USORC.81MAY.R22. 5% Not at all serious, 16% Not too serious, 28% Somewhat serious, 37% Very serious, 24% Don't know: Opinion Research Corporation poll, April 1980, USORC.80APR1.R3M. Data furnished by Roper Center for Public Opinion Research, Storrs, CT.

## Chart 1

### The “Greenhouse Effect” or Global Warming

I’m going to read you a list of environmental problems. As I read each one, please tell me if you personally worry about this problem a great deal, a fair amount, only a little, or not at all.

■ % Great deal / Fair amount



Gallup Poll

activism, around air and water pollution, cause and effect were clear: Anyone could immediately observe industrial or automobile discharges, identify their sources, and observe their effects: The air was visibly dirty and filled with particulate matter, dead fish floated in polluted lakes, rivers caught fire, and trees turned brown and died. Climate change is largely an invisible problem; and while it can manifest itself in dramatic, extreme weather, the absence of immediately observable cause and effect makes public appreciation of its nature and significance more difficult.

Nonetheless, by the time the Nobel Committee awarded its Peace Prize to Al Gore and the United Nations Intergovernmental Panel on Climate Change (IPCC) in 2007, these problems were beginning to decline. There is now a broad, scientific consensus on the need to take prompt steps to stabilize the atmospheric concentrations of greenhouse gases at levels of roughly 440 to 550 parts per million.<sup>2</sup> In addition, members of the media have been educated and have begun to connect extreme weather events to climate change. This is, in significant part, a result of Al Gore’s cam-

paign to educate the public about these challenges, especially through his documentary *An Inconvenient Truth*, which showed how events in distant parts of the world are connected to extreme weather developments continents away. When a waitress in New York City was interviewed on television on an unseasonably warm day in January worrying about climate change instead of delighting in the warm temperatures, the message had reached the public.

Thus, after languishing in scientific journals and environmental think tanks for years, the climate change issue has finally entered the general public’s consciousness. The number of people who believe that global warming is having serious effects now has increased 14 points since 2001 in CBS/NYT polling.<sup>3</sup> And the number of people who have heard or read about global warming increased 14 points between 2003 and 2006 alone.<sup>4</sup> Today, six in 10 Americans indicate that they are highly worried about global warming.<sup>5</sup> But the Democratic Pollster Stan Greenberg conducted focus groups on climate change and found, among swing voters, a lack of urgency on the issue.<sup>6</sup>

2 See page 12, *Confronting Climate Change: A Strategy for U.S. Foreign Policy*, Council on Foreign Relations Task Force report #61. Pataki, George E. and Vilsack, Thomas J., Chairs, Levi, Michael A., Project Director, CFR 2008. And “EPA Analysis of the Climate Stewardship and Innovation Act of 2007,” S. 280 in 110th Congress, EPA, 2007. Stern, Nicholas, “The Economics of Climate Change, The Stern Review,” Cabinet Office, HM Treasury; [http://www.hm-treasury.gov.uk/independent\\_review\\_economics\\_climate\\_change/stern\\_review\\_reporte.cfm](http://www.hm-treasury.gov.uk/independent_review_economics_climate_change/stern_review_reporte.cfm). All of these reports contain reviews and summaries of the scientific evidence.

3 “Recent Polling on Public Perceptions of Climate Change,” Environmental and Energy Study Institute press release, May 4, 2007.

4 Ibid.

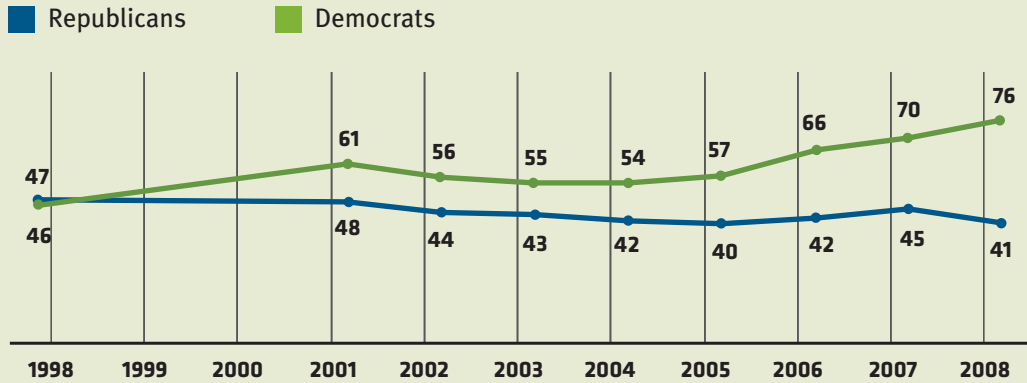
5 Gallup Poll, March 11, 2009.

6 “Voters in our groups do not see global warming as an immediate threat to the United States, their communities or their families — especially relative to the threats posed by high and unstable energy prices and the impact prices are having on their personal finances and the national economy. Even those who view global warming as a threat largely see it as long-term, remote or hard to understand.” Greenberg, Quinlan Rosner Research Memo for the Third Way, June 16, 2009, p. 7 at [http://www.thirdway.org/data/product/file/218/Clean\\_Energy\\_Focus\\_Group\\_Report\\_061509.pdf](http://www.thirdway.org/data/product/file/218/Clean_Energy_Focus_Group_Report_061509.pdf)

## Chart 2

### The “Greenhouse Effect” or Global Warming

Percentage Saying the Effects of Global Warming Have Already Begun (by party ID\*)



\* Results for political independents not shown

Gallup Poll

While public interest in the issue has certainly increased, it also has picked up a partisan coloration. As **Chart #1** and **Chart #2** from Gallup show, in 1998 the numbers of Democrats and Republicans who believed that the effects of global warming had already begun were about even; 10 years later, Democrats are decidedly more firm in this belief than Republicans. The same partisan differences are apparent when people are asked whether the news media exaggerate the seriousness of global warming. An 11-point gap in the answers to this question in 1998 grew to a 41-point gap in 2008, with Republicans now much more likely than Democrats to believe that global warming has been exaggerated.<sup>7</sup>

The emergence of a strong partisan divide on climate change presented complex political and policy problems *before* the 2008-2009 economic crisis, and now those problems are magnified. First, as a matter of serious and urgent policy, the issue is fairly new. While experts have discussed it for some 30 years, it only entered the political lexicon five to seven years ago; and over those years, support and opposition to serious policy measures have taken on decidedly partisan casts. Second, there have been relatively few major policy debates over the issue in recent years. During the Clinton/Gore administration, ratification of the Kyoto Protocol was such a non-starter that it was never formally

submitted to the Senate. Action on the treaty was preempted by passage, in July 1997, of what came to be known as the Byrd-Hagel resolution, stating that the United States would not sign any treaty that did not call for targets for developing countries and that would result in serious economic impacts on the United States. While the decision to avoid a Senate defeat was a sensible political decision for the time, in retrospect it deprived the public of an early, serious open discussion of the issue and the ways to address it. As economic and environmental policy analysts have debated the policy options, those options have generally fallen into two broad categories. The first category consists of “carrots” such as tax credits to purchase fuel-efficient automobiles or appliances and create incentives for consumers to reduce their energy use without experiencing any pain. The second category consists of various “sticks” that would increase the

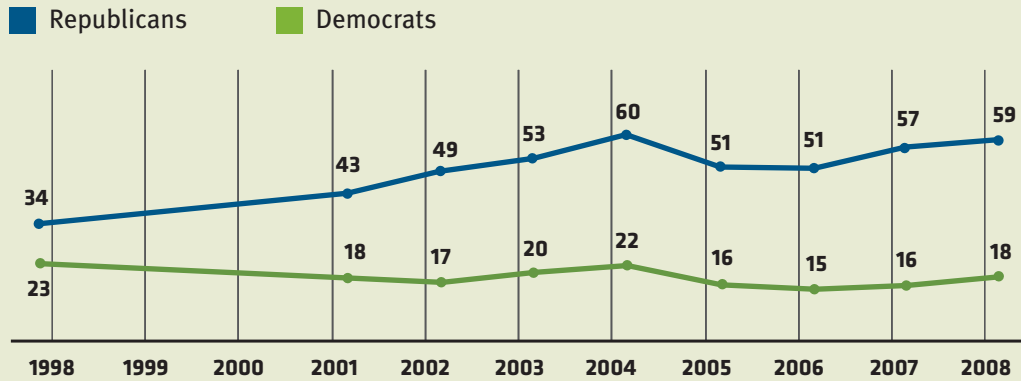
**Climate change is largely an invisible problem; and while it can manifest itself in dramatic, extreme weather, the absence of immediately observable cause and effect makes public appreciation of its nature and significance more difficult.**

<sup>7</sup> “Climate-Change Views: Republican-Democratic Gaps Expand,” by Riley E. Dunlap, Gallup, May 29, 2008.

## Chart 3

### The “Greenhouse Effect” or Global Warming

Percentage Saying the Seriousness of Global Warming is Generally Exaggerated in the news (by party ID\*)



\* Results for political independents not shown

Gallup Poll

price of CO<sub>2</sub> and other greenhouse gases in order to make production and use of alternative energy sources more profitable and widespread. The most popular options in this category are cap and trade systems and a carbon-based tax. In a cap and trade system, the government sets a “cap” on the total amount of emissions that can be sent into the atmosphere and then either gives out or auctions permits to produce those emissions, which also can be traded among greenhouse gas emitters. A carbon tax is simply that — a tax imposed on energy based on the carbon or greenhouse gases it emits.

### In addition to Al Gore, a large number of economists who have written on this topic favor a carbon tax.

The debate has settled on these two options because both of them are “market based” and because “command and control” regulatory action is broadly considered too “bureaucratic” and inefficient. Thus, tracing the evolving politics around both of these options will help us to understand how best to approach the climate change debate as it unfolds.

### The Original Option — A Carbon “Tax-Shift”

Al Gore’s original solution to the climate change problem was to advocate a tax on carbon. In his landmark book *Earth in the Balance*, he proposed what has come to be known as a “tax shift” — taxing carbon and using the revenues to reduce some other tax by an equivalent amount. “I am convinced that a CO<sub>2</sub> tax that is completely offset by decreases in other taxes is rapidly becoming politically feasible.”<sup>8</sup> Over the years, Gore has reiterated his support for a carbon tax combined with a reduction in other taxes. At a New York University Law School speech in 2006, he advocated replacing payroll taxes with carbon taxes arguing that “penalizing pollution instead of penalizing employment will work to reduce that pollution.”<sup>9</sup> In his 2007 speech accepting the Nobel Peace Prize in Oslo, Gore said, “And most important of all, we need to put a price on carbon — with a CO<sub>2</sub> tax that is then rebated back to the people, progressively, according to the laws of each nation in ways that shift the burden of taxation from employment to pollution. This is by far the most effective and simplest way to accelerate solutions to this crisis.”<sup>10</sup>

8 Al Gore, *Earth in the Balance*, Houghton, Mifflin, 2000, p. 349.

9 “Al Gore suggests carbon taxes replace payroll taxes,” by Gerald Prante; <http://www.taxfoundation.org/blog/show/1849.html>.

In addition to Al Gore, a large number of economists who have written on this topic favor a carbon tax. Peter Orszag, author of a 2008 Congressional Budget Office study (and President Obama's Director of the Office of Management and Budget), argues, "A tax on emissions would be the most efficient incentive-based option for reducing emissions and could be relatively easy to implement."<sup>11</sup> Yet, despite a high degree of consensus on the topic, most political actors and environmentalists have come to favor cap and trade as the issue has matured politically. During the presidential campaign, President Obama, along with many other Democratic leaders in this area, expressed a preference for dealing with climate change through some sort of cap and trade system. Today, even Gore himself expresses less enthusiasm for the tax option than he once did. In a 2008 interview in *Newsweek* with Fareed Zakaria, he was asked about his efforts to raise the gasoline tax in 1993. When Zakaria asked him, "Should we try it again despite the economic downturn?" Gore responded, "I don't think that's likely to happen but that's my preferred alternative."<sup>12</sup>

As cap and trade gained favor among many environmentalists, the carbon tax shift approach lost favor, largely because cap and trade was considered the more politically palatable option. This is not the only reason environmentalists like the cap and trade option, however. Unlike a carbon tax, the "cap" offers potentially greater certainty about the amount of annual emissions produced each year. But while both systems can limit emissions, the cap and trade system has the additional advantage of *not* being a tax. The conventional wisdom about broad support for cap and trade persisted until summer 2008, when a major, bipartisan cap and trade bill failed in the United States Senate.

In spite of some rhetorical nods in this direction toward the end of George W. Bush's Administration, as long as he remained president, there could not be a serious debate on climate change policy. With the Democratic takeover of both houses of Congress in 2006 and the Democratic victory for the White House in 2008, it is clear that finally serious steps may well be taken. However, regarding what will be done, how it will be done, and what exactly the public will tolerate all remain uncharted political territory. The lack of political clarity is not for want of debate and discussion among envi-

ronmentalists and their supporters in Congress. Rather, it stems from the fact that the public has never been exposed to a serious debate over the difficult, central issue for climate change policy: putting a price on carbon that deliberately and inescapably raises the price of energy based on its carbon content. To explore these issues, we need to take a step back and look at what we can learn from past efforts in this area.

### **Reexamining the Conventional Political Wisdom: The BTU Tax and SO<sub>2</sub> Emissions Trading**

Two critical initiatives in the 1990s, one a failure and one a success, have shaped many people's political assumptions about the alleged political advantages of cap and trade systems over carbon-based taxes — the failure of the BTU tax in 1993, and the success of the SO<sub>2</sub> emissions trading system for acid rain. Let's examine each one for the lessons they can teach us about the politics of this issue.

The BTU (British Thermal Unit) tax on the energy produced by certain fossil-based fuels was a major part of President Clinton's first deficit reduction budget proposal

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in 1993. Energy generated from natural gas, coal, hydroelectric, and nuclear power would be taxed at a rate of 26.8 cents per BTU, energy generated from oil would be taxed at a rate of 61 cents per BTU, and energy generated from biomass and renewable sources would be exempt from the tax. The proposal faced immediate and solid opposition from the Republican Party and Democratic Senators from oil-producing states, especially Senators John Breaux of Louisiana and David Boren of Oklahoma. It also was the focus of a powerful lobbying campaign by the energy industry and the National Association of Manufacturers, which claimed that the tax would make American products less competitive around the world. In Oklahoma, anti-BTU forces ran newspaper ads claiming that BTU stood for "Big Time

10 Al Gore, Nobel Lecture, December 10, 2007, Oslo, Norway. Downloaded 6/9/09 from <http://nobelprize.org>.

11 "Policy Options for Reducing CO<sub>2</sub> Emissions," a Congressional Budget Office Study, February 2008, page, viii.

12 Fareed Zakaria interview with Al Gore, "Don't Count on Magic" The world's most prominent environmentalist on carbon taxes, clean coal and the dangers of illusion," *Newsweek*, December 8, 2008.

**As cap and trade gained favor among many environmentalists, the carbon tax shift approach lost favor, largely because cap and trade was considered the more politically palatable option.**

Unemployment.”<sup>13</sup> Had it been uniformly applied across energy sectors, however, it may not have faced such intense opposition — an important lesson for the current debate.

Less than six months into the debate, by June of 1993, it was clear that the tax would fail. Senator Breaux declared it “dead, buried and beginning to decay,”<sup>14</sup> and by July President Clinton gave up on the tax.<sup>15</sup> The short and brutal life of the BTU tax taught the Clinton Administration a hard lesson. Jeffrey Frankel, an economist who worked on climate change issues in the Clinton Administration, writes, “After the fiasco of the proposed BTU tax and gas tax in the first year of the Clinton Administration, one could not even mention the word ‘tax’ out loud in a discussion of GCC (global climate change) options in the late 1990s.”<sup>16</sup>

The failure of the BTU tax convinced many policymakers concerned about climate change that anything called a tax would be politically unsustainable. As recently as August 2008, Bill Clinton himself, addressing the National Clean Energy Summit, said that he supports a cap and trade system, because “I tried [a carbon tax] once. It didn’t work for me.”<sup>17</sup> However, some key differences between 1993 and today are noteworthy. First is the current scientific consensus about climate change. A LexisNexis search for the first six months of 1993 reveals two important findings: First, the BTU tax was not seen primarily as a response to global warming, but rather as one of a series of deficit reduction tactics; and second, global warming still faced significant public skepticism and uncertainty. A review of some of the headlines from mainstream news sources in those years

illustrates that the media, reporting in part on what came to be seen as junk science, were not convinced that global warming was real. They included headlines such as: “Warming to Illusory Dangers,” “Global Warming Proof Still Feels Lukewarm,” “Global Warming a Myth,” “Arctic Weather Study Fogs Warming Theory,” “Ancient Tree Rings Show No Evidence of Global Warming, Study Says,” “Dire Reports of Global Warming May Not Be Based on Reliable Data,” and “Study: No Evidence of Global Warming.”<sup>18</sup>

With news reports casting doubt on the whole issue and an energetic lobbying campaign against it, it is not surprising that the public rejected higher energy taxes. Surveys sponsored by the bill’s opponents were widely circulated and discussed. One nationwide survey conducted by CambridgeReports/Research International and released by the American Energy Alliance reported that 57 percent of Americans opposed the tax, with only 36 percent supporting it, and that those who “strongly oppose” a broad-based energy tax outnumbered those who “strongly support” the tax by a 4-to-1 margin. Another poll conducted by the National Association of Manufacturers, a major opponent of the BTU tax, found that, “75 percent of those surveyed agree that the tax would fall more heavily on lower- and middle-income people; 71 percent believed that the revenues raised by the BTU tax would be used primarily to fund new government-spending programs rather than helping reduce the deficit; and 61 percent thought that a BTU tax would increase costs to businesses and industries, slowing our economic growth and costing jobs.”<sup>19</sup>

Last but not least, the proposed BTU tax was burdened by its own complexity. The *Journal of Commerce’s* editorial page summed it up as follows: “...The BTU tax posed almost insurmountable administrative problems. As first proposed, it would have required a new bureaucracy to determine the energy content of goods and services and decide where to apply the tax. But in pushing his plan through the House, the president made it even more complex, riddling the tax with exemptions and side deals.”<sup>20</sup>

13 “Fanning A Prairie Fire: Capital Lobbies Stirred Oklahomans’ Tax Revolt,” by Michael Weisskopf, *The Washington Post*, May 21, 1993.

14 Quoted in *The Hotline*, June 28, 1993.

15 UPI, July 20, 1993.

16 “Formulas for Quantitative Emission Targets,” by Jeffrey Frankel, in *Architectures for Agreement: Addressing Global Climate Change in the Post-Kyoto World*,” edited by Joseph E. Aldy and Robert N. Stavins, Cambridge University Press, 2007.

17 <http://www.carbontax.org/progress/a-brief-history-of-energy-tax-efforts/>

18 *The Washington Times*, April 4, 1993; *The Wisconsin State Journal*, June 7, 1993; *Houston Chronicle*, April 17, 1993; *Chicago Sun-Times*, January 28, 1993; *Associated Press*, May 20, 1993; *Atlanta Journal-Constitution*, April 22, 1993; *USA Today*, January 28, 1993.

19 PR Newswire, July 1, 1993, “Public Opinion Poll Shows Majority of Americans Oppose Broad-Based BTU Energy Tax.”

20 “Demise of the BTU Tax,” *Journal of Commerce*, June 10, 1993, page 6A.



Administrative overhead was thought to be as high as 20 percent of the total revenues collected, according to a former Carter Administration economist.<sup>21</sup>

The lessons from the short, brutal life of the BTU tax probably have been over-learned. The tax was part of a large and controversial deficit-reduction package that led the Republican National Committee to run ads in the districts of 15 Democrats who had voted for it — ads that helped the Republicans achieve their historic takeover of Congress in 1994. Secondly, there was no urgency to the issue of global warming in 1993, as a review of the media from that era indicates. Third, the whole idea of a BTU tax was foreign to the American public at the time and arguably posed a potential threat to some American jobs. It is no wonder then that the BTU tax proposal fell.

In contrast to the BTU tax, another environmental innovation of the 1990s, the Sulfur Dioxide Trading Scheme enacted as part of President George H.W. Bush's Clean Air Act, has been judged a great success. In fact, it has been so successful that many environmentalists who initially resisted it on grounds that polluters shouldn't be allowed to pay to pollute now want to apply the same model for a variety of other environmental problems, including greenhouse gases. While the lessons of the BTU tax scared a generation of policymakers away from a tax approach to environmental problems, the success of the sulfur dioxide trading scheme has convinced many of them that the cap and trade model can work in a variety of circumstances. This conclusion also requires reexamination.

The 1990 Clean Air Act, more than a decade in the making, had clear-cut goals. By the time this legislation was debated and enacted, most voters were familiar with the damage that acid rain was doing to lakes, streams, and forests. "Dead lakes," dead fish, and trees that stopped growing were present in many parts of the country, especially the Northeast, suffering the effects of the sulfur dioxide gases produced by old Midwestern power plants. Thus, the object of the legislation was clear and understandable.

In addition, the administration of George H.W. Bush earned praise for experimenting with this new approach to environmental policy. In contrast to command and control environ-

mental regulations that often resulted in obsolete or inappropriate technology being mandated to solve a problem, the 1990 legislation was hailed as a conceptual and political breakthrough by creating the first cap and trade program for environmental purposes. According to one contemporaneous account, "[r]ather than simply balancing environmental goals against economic goals, Bush took a different tack. The use of marketplace incentives in controlling pollution has been gaining acceptance now for several years. But Bush has given the notion a strong embrace. It allowed him, at least in a broad conceptual plan such as the one he introduced this week, to choose targets acceptable to environmentalists while giving business the flexibility to cut the cost."<sup>22</sup> "It took a lot more creativity," Dudeck says, than just splitting the difference between warring interests. That flexibility "was real critical," notes Mike Core, an official with Buckeye Power, an Ohio utility with coal-burning plants.<sup>23</sup>

Since then, the Clean Air Act of 1990 has been remarkably successful. The emission reductions targeted in the law were achieved and then exceeded. Acid rain is a topic that is almost never in the news anymore — at least regarding the United States. It also established a model that many environmentalists have favored ever since, even though they were initially suspicious of a plan that would "let polluters pay to pollute."

### **The failure of the BTU tax convinced many policy makers concerned about climate change that anything called a tax would be politically unsustainable.**

Robert N. Stavins, one of the architects of the initial SO<sub>2</sub> trading system, cautions that there are lessons to be learned from its success. These lessons are "...about the importance of flexibility and simplicity, the role of monitoring and enforcement, and the capabilities of the private sector to make markets of this sort work."<sup>24</sup> The sulfur dioxide emissions trading scheme was small and highly targeted, beginning with 263 units at 110 power plants run by 61 electric utilities. The technology for dealing with sulfur dioxide emissions was known at the time the legislation became law.

21 "Drop the BTU Tax: Complexity Frustrates Citizens and Feeds Resentment of Government," *Pittsburgh Post-Gazette*, Editorial, Page B3, June 6, 1993.

22 "Free Market Tack to Cleaner Air," by Marshall Ingwerson, *Christian Science Monitor*, June 14, 1989.

23 Ibid.

24 "Lessons Learned from SO<sub>2</sub> Allowance Trading," by Robert N. Stavins, in *Choices, the Magazine of Food, Farm and Resource Issues*, 1st Quarter, 2005.

**“In 1990, environmental advocates insisted on continuous emissions monitoring, which helps build market confidence. The costs of such monitoring, however, are significant.” (Robert N. Stavins)**

As Stavins points out, “...both scrubbing and fuel-switching were feasible options.”<sup>25</sup> Third, Stavins points out that “...simple formulas for allocating permits based upon historical data have proven difficult to contest or manipulate.” Although the SO<sub>2</sub> permits were given out without charge, Stavins argues that the costs of trading SO<sub>2</sub> would have been 25 percent lower if permits had been auctioned instead of freely allocated. Finally, Stavins argues for the “importance of monitoring and enforcement provisions. In 1990, environmental advocates insisted on continuous emissions monitoring, which helps build market confidence. The costs of such monitoring, however, are significant.”<sup>26</sup>

Laurie Williams and Allan Zabel, two environmental enforcement attorneys from San Francisco, call the acid rain program the “poster child” for the cap and trade program.<sup>27</sup> It appeared to prove the possibilities in this new public policy approach when it succeeded in reducing SO<sub>2</sub> emissions. It succeeded, however, because power plants could switch from high-sulfur eastern coal to low-sulfur western coal. Achieving these reductions, therefore, required very little infrastructure — some new rail lines (deregulation of the railroads meant that cleaner coal could get where it needed to be) minor burner modifications, and some more efficient scrubbers. In contrast, Williams and Zabel point out, fighting climate change requires an energy revolution that will have to include massive new infrastructure and extensive innovation.

### **Lieberman-Warner Tests the Cap and Trade Consensus**

It is not surprising that a consensus evolved around the political desirability of cap and trade. After all, the BTU tax was a bust; the SO<sub>2</sub> program was a success. Writing for the Center for Progressive Reform, Rena Steinzor sums up the enthusiasm for cap and trade as follows: “The overall suc-

cess of acid rain trading has provoked extravagant claims about the desirability of cap and trade systems as a more efficient alternative to traditional regulation.”<sup>28</sup> Moreover, in the 1990s Americans were in the midst of a love affair with the private sector and deep distrust of government. Market-based mechanisms were popular in both political parties, and taxes and regulation carried such negative political baggage that they were to be avoided at all costs.

Since 2003, several cap and trade bills have been introduced in Congress that have ultimately been unsuccessful. The most recent example of Lieberman-Warner exemplifies the arguments used to defeat cap and trade. In the fall of 2007, Senators Joe Lieberman (I-CT) and John Warner (R-VA) teamed up to introduce a bipartisan cap and trade bill — “The Climate Security Act of 2007.” The fact that this major congressional debate on global warming legislation occurred during the largest run-up in gasoline prices in decades did not help it succeed. But its rapid demise called into question years of assurances from advocates that cap and trade was the most politically palatable way of addressing climate change. In fact, much of the debate in the Congress focused on whether or not the bill would further increase gas prices, complete with the selective use of statistics by both sides. The concern over gas prices was so strong that Senate Republican Leader Mitch McConnell “... had an amendment ready that would suspend the bill if it caused gasoline prices to rise by any amount. If that amendment ever went to a vote, it would force the bill’s supporters to come out in favor of higher gas prices and the Republican TV attack ads would produce themselves.”<sup>29</sup>

Many of the proponents of cap and trade supported it primarily for what it was not — a tax. But as the debate over Lieberman-Warner illustrated, increases in energy prices that result from congressional legislation will be called a tax by the opposition — and the basic theory of cap and trade entails higher prices for gasoline and other carbon-inten-

25 Ibid.

26 Stavins, OpCit, page 4.

27 Laurie Williams and Allan Zabel, “Climate Change Solutions: Cap-and-Trade versus Carbon Tax” PowerPoint presentation at [www.carbonfees.org](http://www.carbonfees.org).

28 “Emissions Trading,” by Rena Steinzor, in *Perspectives*, by the Center for Progressive Reform, 2005.

29 “Why the Climate Bill Failed,” by Eric Pooley, *Time Magazine*, at <http://www.time.com/time/nation/article/0,8599,1812836,00.html>.

sive energy. Speaking against the Lieberman-Warner bill, Senator Grassley from Iowa had this to say, “I have already quoted the CBO Director saying that this bill will have the same economic effect as tax increases ... where I come from, as the saying goes, if it walks like a duck, talks like a duck, it is a duck. Well, this looks like a tax and it talks like a tax.”<sup>30</sup> The conservative columnist George Will wrote, “A carbon tax would be too clear and candid for political comfort. It would be what cap-and-trade deviously is, a tax, but one with a known cost.”<sup>31</sup> And the *San Francisco Chronicle* reports “but many conservatives see it as a tax-and-spend scheme dressed up as a market-based approach.”<sup>32</sup>

In addition to being called a tax, the 2007 cap and trade bill was, in the words of a blogger for the liberal publication, *The American Prospect*, “comically complicated.”<sup>33</sup> It “would have established enough boards and regulations that the Chamber [of Commerce] was able to distribute a devastating chart, modeled on those used against Hillary Clinton’s health care plan in 1993, that portrayed the proposal as an impossibly tangled hedge of new bureaucracies. The 492-page bill had become, in the words of Senator Lamar Alexander of Tennessee, “... a well-intentioned contraption and it creates boards and czars and commissioners and money, and it is too complicated and too expensive. It has the potential for too many surprises.” Even the environmentalists thought it was a bit much. The next version will “have to be simpler,” says Eileen Claussen, president of the nonpartisan Pew Center on Global Climate Change.<sup>34</sup>

The bill’s complexity meant that its opponents, including the Bush White House, were able to argue that it would raise gasoline prices, increase other energy prices, and cost jobs at a time when Americans were suffering record high gas prices, high energy prices, and rising unemployment. James Connaughton, chairman of the White House’s Council on Environmental Quality, warned in April 2008 that “the country would face the prospect of a 50-cent increase in gas prices at the pump; a \$1,200 increase in home heating bills; and even a national recession, possibly leading to a global recession.”<sup>35</sup> Senator Alexander (R-TN) argued that the bill would create a massive “slush fund”

showering federal money on all sorts of projects that had little to do with alternative sources of energy. And on April 9, 2008, the Congressional Budget Office “scored” the bill at a whopping \$1.2 trillion over a nine-year period. It hardly mattered that the \$1.2 trillion would come into the government as the result of the auction of permits and go out of the government in the form of aid to a variety of “green” projects that would presumably help the U.S. wean itself from carbon dioxide-emitting forms of energy. The cost estimate was sufficient to convince many skeptics of government that the bill was just too big.

Legislation often gets more and more complex as it attempts to address more problems and answer more objections. For example, in the course of the debate, the Senator from Wyoming pleaded the case of small refiners, the Senator from Minnesota pleaded for exemptions for steel process emissions, and the Senator from Iowa pleaded for an extension of wind energy credits. The liberal icon Robert Greenstein pleaded the case of the poor. Like Hillary Clinton’s health care bill 14 years earlier, complexity did not help the politics of the climate change bill.

**In fact, much of the debate in the Congress focused on whether or not the bill would further increase gas prices, complete with the selective use of statistics by both sides.**

The complexity of the bill meant that at the heart of the 2008 climate change debate, there was massive uncertainty about how much it would actually cost. Opponents did their best to make those costs look massive, relying, for instance, on studies that assumed no innovation in energy efficiency in coming years. Supporters assumed too much innovation or had trouble accurately capturing the gains of energy efficiency. Supporters of the bill also could not nail down the cost issue. As the economist Richard Cooper points out, in open societies straight talk often wins. “One way or another, the energy-consuming public is going to

30 [http://thomas.loc.gov/cgi-bin/query/C?r110:/temp/\\_r110qQnrT](http://thomas.loc.gov/cgi-bin/query/C?r110:/temp/_r110qQnrT).

31 “Carbon’s Power Brokers,” by George Will, *The Washington Post*, June 1, 2008, page B7.

32 “Senate taking up key climate-change bill,” by Zachary Coile, *San Francisco Chronicle*, June 2, 2008.

33 Posted by Ezra Klein on June 16, 2008 8:27 PM, *The American Prospect website*.

34 Quoted in “The Greenhouse Gas Debacle,” by Ron Brownstein, *National Journal*, June 14, 2008.

35 “White House Environment Advisor Paints Gloomy Picture of Life Under Emissions Caps,” by Lachlan Markay, April 25, 2008.

have to pay higher prices [to reduce greenhouse gas emissions] ... Advocates of significant action in the near future to reduce emissions have been reluctant to acknowledge this ineluctable fact... This strategy of concealing or seriously downplaying an important consequence of proposed actions will not work in open societies where skepticism of government claims has grown significantly.”<sup>36</sup>

### **The Politics of Climate Change — What Have We Learned So Far?**

The Democratic takeover of Congress in 2006 and the presidency in 2008 means that in coming months, the United States will likely confront the issue of climate change more seriously than it ever has before. As I write today, in June 2009, the Waxman-Markey bill, (The American Clean Energy and Security Act of 2009) is moving through Congress, and many Americans are hearing a debate over climate change for the first time. Thus it makes sense to ask what we have learned from past efforts to deal with climate change and other difficult problems, and how these lessons might help actually pass serious climate change legislation in the near future. These lessons fall into the following categories:

- 1) Costs to consumers matter, especially during a recession.
- 2) Complexity matters, because it can create distrust in an already cynical public.
- 3) Fairness matters, especially in the capacity to enforce public policy.
- 4) International compatibility matters, since Americans will not want to feel that they alone are making sacrifices.
- 5) Effectiveness matters, because as we have seen, a system with too many loopholes will not effectively curb emissions.

**The complexity of the bill meant that at the heart of the 2008 climate change debate, there was massive uncertainty about how much it would actually cost.**

### **Cost**

Thus far, the debate on climate change has suffered from an understandable yet misguided tendency on the part of advocates to obscure the issue of cost, even though the point of climate change legislation is to *raise the price of carbon*. Since carbon-based energy is much cheaper than cleaner forms of energy, the government has to raise it somehow in order to do the two things necessary to reduce CO<sub>2</sub> levels: stimulate investment and innovation in alternative energy, and change the behaviors of millions of businesses and households.

The Lieberman-Warner bill was debated during a huge upsurge in gasoline prices, in the summer of 2008. One of the many problems it encountered was that no one could say exactly *how* much energy prices, especially gasoline prices, would increase as a result of the legislation. A year later, gasoline prices have dropped significantly; but overall economic conditions in 2009 are far worse. In the first six months of the year, unemployment has risen sharply, and investment portfolios and housing prices have collapsed. Ironically, in the midst of this historic economic meltdown, one bright spot for consumers has been relatively low gasoline prices.

Increased costs to the consumer are by far the biggest obstacle to passing climate change legislation in both the near and longer-term future. The cost issue, moreover, is exacerbated by the choice of a cap and trade system. Energy prices under cap and trade systems are inherently volatile — the prices of the permits fluctuate sharply, depending on things as unpredictable as the weather and the economy’s growth rate. Besides the obvious economic problems, such price volatility also creates serious political problems. First, no one can answer with any certainty the all-important question, how much will this cost me? This is a tough political sell in good times; and an even harder sell in a recession.

The second cost problem involves the issue of rebates. Nearly all plans recognize that the only way to make an increase in the price of carbon politically feasible is to recycle some of the government revenues to consumers. But the amount of revenues returned and the mechanism for returning those revenues varies, depending on whether it’s a cap and trade system or a carbon tax. The Waxman-Markey bill includes provisions to return 15 percent of the

36 “The Case for a Carbon Tax,” by Richard N. Cooper, in *Architectures for Agreement*, Cambridge University Press, 2007, page 106.

money from the sale of emissions allowances to the poorest 20 percent of the population, using the federal tax code and existing state-level social service systems.

Rebating money to low-income people is important, but it does not solve the political problem likely to arise among the other 80 percent of Americans. As we have seen, the 1993 proposal for a BTU tax for the purpose of deficit reduction fell like a lead balloon. For political purposes, legislation raising the price of carbon during a recession would have to rebate much more than 15 percent of its revenues. One option would be to rebate most of the proceeds from a cap and trade system directly to all Americans, in the form of checks cut directly from the Treasury each month. This proposal, known as cap and rebate, would take some of the pain out of increasing energy prices in the midst of a recession. (Some members of Congress are discussing just such an approach). The other option would be to return to Al Gore's original idea and impose a tax on carbon and a simultaneous decrease in some other tax. In a detailed analysis, former Clinton official Robert Shapiro and two colleagues, Dr. Nam Pham and Dr. Arun Malik, have shown how a steadily increasing carbon tax could be offset by reducing the payroll tax for all Americans.<sup>37</sup> (This option has the advantage of built-in progressivity, since the effect of the payroll tax is regressive.) In the end, it is far easier to design a rebate for a carbon tax than for a cap and trade system, because there is no volatility in prices and revenues under the carbon tax, compared to such substantial volatility in a cap and trade system — in other words, the government knows what it has to rebate.

The final reason why clear and simple rebates are so important is that Americans do not respond well to sudden, unexpected and not well-understood increases in their expenses. The saga of the Medicare Catastrophic Coverage Act of 1988 bears retelling. It was unveiled in President Reagan's State of the Union address in 1986 and passed by a Democratic Congress in 1988. Less than a year and a half later, it was repealed, making it "one of the shortest-lived pieces of social policy in U.S. history."<sup>38</sup> Congress seriously misjudged seniors' tolerance for higher premiums — expecting that they would value the prescription drug benefits. But angry middle-class senior citizens rebelled when they discovered that they were being asked to pay higher

Medicare premiums in order to cover benefits that many of them already had. Putting aside the merits of the issues, the Medicare Catastrophic Coverage shows just how difficult Congress finds it to stick to its guns when faced with an outright revolt by the voters.

## **The Democratic takeover of Congress in 2006 and the presidency in 2008 means that in coming months, the United States will likely confront the issue of climate change more seriously than it ever has before.**

Any increase in energy prices will be a hard sell under any circumstances, and especially so during a recession. But if politicians can be precise about the cost and rebate nearly all of the revenues back to consumers, they may be able to pass a bill that does not end the same way as the Medicare Catastrophic Coverage Act.

### **Complexity**

The broad public skepticism of government also makes the imposition of large-scale, complex legislation extraordinarily difficult. Issues that have been on the table for decades — such as universal health care — have suffered at the hands of Americans' trust deficit, not to mention issues like climate change that are relatively new to public discussion. As **Table #1** illustrates, in recent decades very low levels of trust in government have been the norm. These low levels of trust persist across demographic groups and in the face of changes in the political party in power. Distrust is highest at the federal level and lower at the state and local levels, but it is pervasive. Trust in other institutions also is low. Not surprisingly, trust in banks and financial institutions has dropped from 30 percent to 19 percent in the past two years — levels not seen since the savings and loan scandals of the 1980s.<sup>39</sup> Complexity, uncertainty, and partisan divisions are difficult obstacles to overcome under the best of circumstances — add pervasive distrust of government to the mix, and those obstacles may become insurmountable.

37 Robert Shapiro, Nam Pham and Arun Malik, "Addressing Climate Change Without Impairing the U.S. Economy: The Economics and Environmental Science of Combining a Carbon-Based Tax and Tax Relief," June 2008 at <http://www.climateactionforce.org/images/62008shapiro.pdf>.

38 Eric M. Patashnik, *Reforms at Risk: What Happens After Major Policy Changes Are Enacted*, (Princeton, NJ, Princeton University Press, 2008) p. 166.

39 Nate Silver, "Americans losing their faith in faith and everything else," March 12, 2009, at FiveThirtyEight: Politics Done Right.

**Table 1****Trust in Government**

**How much of the time do you think you can trust government in Washington to do what is right — just about always, most of the time, only some of the time or never?**

Year	Just About Always/Most of the time	Only Sometimes/Never	Sometimes/Never
1958	73	23	4
1968	61	36	3
1970	53	44	2
1972	53	45	1
1974	36	62	2
1980	25	73	2
1984	44	54	2
1990	28	71	1
1996	33	67	0
2000	44	56	0
2002	56	44	0
2005	29	69	1
2007	24	76	0
2008	32	67	1

Source: Gallup Poll asked continuously since 1958

This was vividly illustrated in 1993 and 1994, when Hillary Clinton’s massive and complex health care legislation failed — a victim, in part, of its own complexity. It was illustrated again in the summer of 2008 when the Lieberman-Warner bill failed, also a victim of its own complexity. The political pitfall with complexity is that it allows opponents to read into the legislation the worst possible outcomes, while making it difficult for proponents to defend the bill in easily understandable terms.

The Waxman-Markey bill already suffers from enormous complexity. At more than 1,000 pages, it is a ripe target for those who seek to stop all climate change legislation. In the end, the inherent organizational complexity and concomitant opportunities for evasion, manipulation, and corruption in all large-scale cap and trade systems are difficult to defend.

Perhaps an even bigger problem with the Waxman-Markey bill is not what Americans don’t understand about it, but

what they may actually come to understand — namely, that Waxman-Markey creates a volatile market that will be subject to the kinds of complex financial manipulations and hedging strategies that were so instrumental in bringing on the current economic crisis. Both the SO<sub>2</sub> trading scheme and the European Union’s Emissions Trading Scheme have seen large swings in prices, averaging between 17 percent and 22 percent per month.<sup>40</sup> Any market subject to such price volatility invites the creation of derivatives, options, calls, and other instruments designed to protect against or take advantage of price volatility, and then speculation in those various instruments. While the bill makes several attempts to regulate these new markets, its effectiveness is doubtful, and its timing is inauspicious. After all, the current economic collapse is the result of market manipulations that a long-standing regulatory system failed to police. NASA scientist James Hansen writes “Trading of rights to pollute...introduces speculation and makes millionaires on Wall Street.”<sup>41</sup>

40 See United States Environmental Protection Agency, “Clean Air Markets — Data and Publications” at <http://www.epa.gov/airmarkets/auctions/index.html>. See also European Energy Exchange, EU Emission Allowances” at [www.eex.de/get.php?f=emission\\_spot\\_historie\\_2007](http://www.eex.de/get.php?f=emission_spot_historie_2007).

41 Speech at Columbia University’s 350 Climate Conference, May 2009.

## Fairness

In addition to taking steps to rebate costs and deal with complexity, proponents of climate change legislation have to make sure that the public perceives it to be fair and that everyone is treated more or less the same. This is a tall order for carbon tax schemes or for cap and trade schemes, since both are vulnerable to special-interest deals as they move through the legislative process. In the case of taxes, the challenge is simple and straightforward — the legislation has to minimize the number of loopholes and exemptions to the tax. In the case of cap and trade systems, the challenge is similar but not as transparent.

An ideal cap and trade system would auction off all permits under a cap drawn tightly enough to reduce overall greenhouse gas levels. Yet this ideal, endorsed by President Barack Obama during his campaign, never happens in the real world. In the initial creation of the European Union's Emissions Trading Scheme, politicians gave away so many allowances for political purposes that the system has had little impact on emissions. In Germany, for instance, politicians made sure to protect their all-important auto industry. Subsequent calls for reform in the European system have urged that a greater proportion of allowances be auctioned off. Lieberman-Warner reserved only a small portion of its permits for auction and as Waxman-Markey moves through the legislative process, it has reserved just 15 percent of its initial permits for auction.

Nonetheless, one of the strengths of cap and trade is, as Rob Stavins points out, that even with political allocation of permits, as long as the cap is in place, it should be environmentally effective. What is seen as a “massive corporate giveaway” of allowances doesn't need to affect the environmental effectiveness of the bill, as long as the cap is in place and trading takes place within the cap.

Yet, the lackluster performance of the European system suggests that the political impulse to buy support by giving away permits does, in fact, over time, affect the cap. In the allocation of permits, the German government was eager to protect its coal industry and awarded free credits to coal-fired plants. Similar inside dealing happened in other European countries, even though, in principle, the EU was supposed to review each government's allocation

to reduce favoritism. In short, according to Lionel Fretz of the Carbon Capital Markets, “Companies overrepresented their allocation needs and lost a lot of trust by making the European Community and national governments look stupid.”<sup>42</sup>

## NASA scientist James Hansen writes “Trading of rights to pollute...introduces speculation and makes millionaires on Wall Street.”

The EU experience shows that many powerful industries may support cap and trade systems, because they are confident that they can lobby successfully for free allowances. Writing in *Scientific American*, D. Cullenward and D.G. Victor note that “...interested industries typically press for trading markets rather than taxes. They do so because they know that politicians tend to give away the emission credits for free to existing emitters, which constitutes huge windfalls. ...In the past, a few trading systems have auctioned some of their permits, but ‘big carbon’ — including coal mining firms and owners of coal-fired plants — is organizing to resist such attempts.”<sup>43</sup> The initial EU plan limited auctions to no more than one-tenth of the permits. While that will increase for 2013, it is naïve to think that politicians will give up their control over something that is so valuable to important interests. In Australia recently, 70 large energy companies also joined forces to lobby the Energy Minister for greater compensation in terms of permits.

In Europe today, carbon permits are very cheap, reflecting a cap so high as to be ineffective; and accordingly, CO<sub>2</sub> emissions have not decreased significantly.<sup>44</sup> In fact, throughout much of Europe, countries are building coal-fired power plants in spite of widespread support for the Kyoto Protocol and an operating cap and trade market. This has proven to be an embarrassment in Germany, where the trading scheme has been successful in creating alternative energy sources but *not* successful in reducing CO<sub>2</sub> emissions. A recent *Business Week* article examined the situation and asked, “So why has nothing changed? According to experts, one reason has to do with technical problems. In the course of an ongoing trading period, they claim, adjusting the volume of CO<sub>2</sub> certificates is no easy

42 “Firm Footprints to a Global Market,” by M. Scott, *The Financial Times*, May 4, 2008.

43 “Making Carbon Markets Work, D. Cullenward and D.G. Victor, *Scientific American*, September 24, 2007.

44 “EU Greenhouse Gas Emissions Increase for Second Year in a Row,” press release, June 22, 2006, European Environment Agency.

task. Still, a Social Democratic Party of Germany (SPD) insider provides yet another explanation: “Politicians just have to resign themselves to certain things.” As the insider sees it, if the state went back to the companies and took away the certificates they had been allotted, the result would be an uproar. “What do you think the companies would say to us?” he asks. “As a politician, there are certain storms that you simply can’t weather.”<sup>45</sup>

Another example of how the political process undermines emissions trading is the fact that Europeans are building those new coal plants. A skeptic has to ask, “Why are Europeans building new coal plants, if coal is the single-largest source of CO<sub>2</sub> emissions, if a market for CO<sub>2</sub> exists that should make the price go up every year, and if there are no commercially available carbon sequestration technologies?” The answer is that these plants are cheap despite

plans that permit cheap offsets that, in the end, do nothing to reduce the production of CO<sub>2</sub> at its source.

For instance, in a recent letter to President-elect Obama, James Hansen pointed out that Japan has been increasing its use of coal and justifying it by buying credits from China through the CDM and yet, China’s emissions have also increased.<sup>47</sup> Unless incredibly well designed and well policed, which could mean access to many parts of many countries, offset plans are likely to make polluters feel good without creating meaningful reductions in CO<sub>2</sub>.

The fairness issue is likely to cause public concern in either a cap and trade or a tax system, but the differences can be significant. In focus groups with swing voters, the Democratic pollster Stan Greenberg found that the trading aspect of cap and trade rouses suspicions among those voters.

### **In focus groups with swing voters, the Democratic pollster Stan Greenberg found that the trading aspect of cap and trade rouses suspicions among those voters.**

Europe’s current cap and trade schemes, and because in the long run the energy industry doesn’t believe that politicians will allow the price of permits to rise. *The New York Times* article on this topic concludes, “The European Union, through its emissions trading scheme, has tried to make power plants consider the costs of carbon, forcing them to buy ‘permits’ for emissions. But with the price of oil so high, coal is far cheaper, even with the cost of permits to pollute factored in, Enel (Italy’s major electricity producer) has calculated.”<sup>46</sup>

A second fairness issue arises from the proposals in many cap and trade plans to allow polluters to buy offsets. This proposal has scientific merit; after all, preservation of a forest in Brazil or of wetlands in some other part of the world can be as useful to the reduction of CO<sub>2</sub> as actual emissions reductions. On the other hand, the experience of the United Nations’ CDM (Clean Development Mechanism) has left many environmentalists skeptical about offset

“The problem with ‘Trade’: The more voters hear about the mechanism, the less supportive they become because it sounds like big polluters will just buy their way out of doing the right thing. And ‘trade’ conjures up all the Wall Street practices that voters believe have drained their 401(k)s.”<sup>48</sup>

It is much easier to monitor and understand, and therefore hold Congress accountable for, tax breaks to industries. By contrast, the issue of fairness in allocating allowances is shrouded in complexity, and in Europe it has taken the public years to begin to understand its consequences.

#### **International Compatibility**

The political problems facing cap and trade are not only domestic, but also international. The United States has been historically the biggest emitter of greenhouse gases.

45 Anselm Walderman, “Green Energy Not Cutting Europe’s Carbon: wind farms and solar panels are a European success story. But the dirty little secret is that using renewable energy isn’t reducing carbon emissions,” *Business Week, Europe*, February 10, 2009. Downloaded at: [http://www.businessweek.com/globalbiz/content/feb2009/gb20090210\\_228781.htm](http://www.businessweek.com/globalbiz/content/feb2009/gb20090210_228781.htm).

46 “Europe Turns to Coal Again, Raising Alarms on Climate Change,” by Elisabeth Rosenthal, *The New York Times*, April 23, 2008, Page 1, Section A.

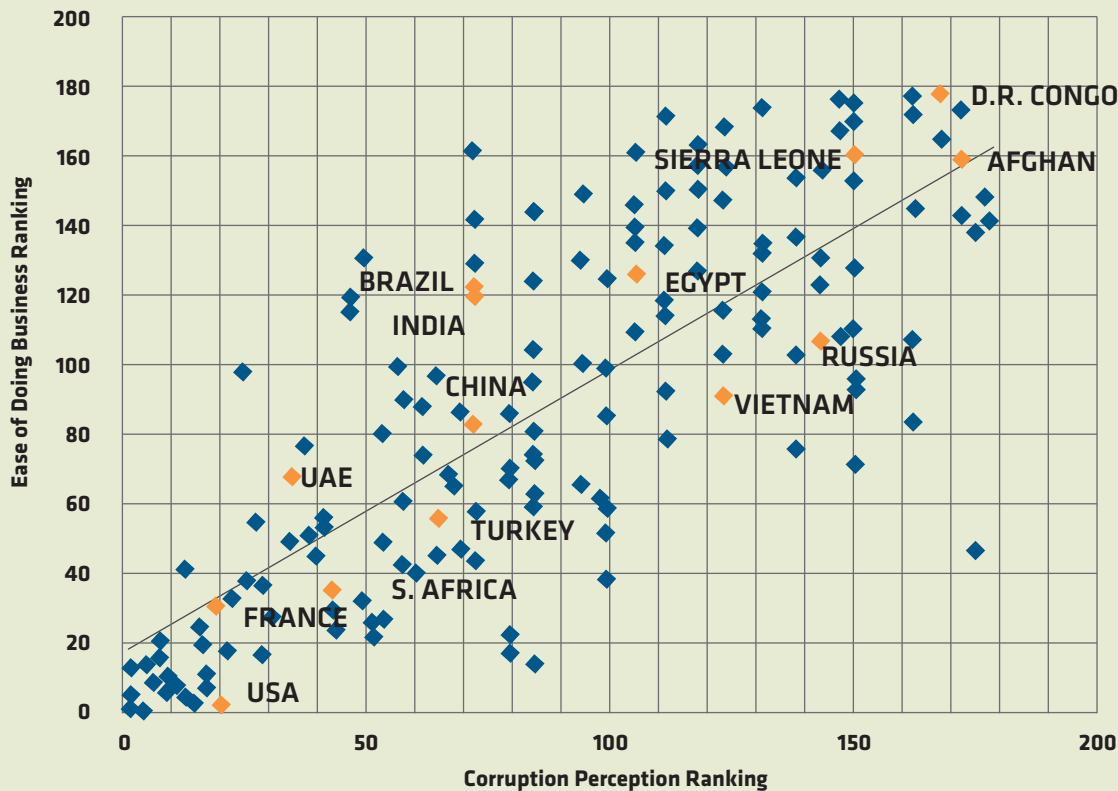
47 James Randerson, “Climate Change Policies Failing, NASA scientist warns Obama,” *Guardian*, January 1, 2009.

48 Greenberg Quinlan Rosner, op. cit. P. 8.



Chart 4

Corruption and Regulation Across Countries: 2007



Transparency International and the World Bank Doing Business Project. (Note: Rankings include 178 countries with the highest ranking as 1.)

However, with the rapid development of India and China, their greenhouse gas emissions are rapidly surpassing the United States; and the American public will not stand for a solution that does not address and include developing countries. But cap and trade systems pose especially difficult problems for developing countries. They presuppose a highly developed regulatory system that can police markets as well as monitor and verify emissions. These conditions simply do not exist in much of the developing world. In many developing countries, regulatory institutions are no more than a few years old. The challenge of establishing new modern institutions in developing countries is frequently underestimated. It takes many years to build up such professional capacity, and many years to root out corruption.

The corruption problem is endemic throughout the developing world. But the relationship between corruption and

regulation is often misunderstood. In much of the world, corruption is directly related to excessively burdensome and complex regulatory processes. Stated simply, systems that are not transparent create environments where corruption can thrive most easily. **Chart #4** illustrates this point. The vertical axis consists of rankings by the World Bank that summarize the ease of doing business in a country. The horizontal axis is the Transparency International ranking of the perceived degree of corruption in any given country. The relationship is clearly linear. As the difficulty of doing business increases, so does corruption. Low levels of corruption correlate with ease of doing business.

An extensive literature supports the findings of the above graph by showing that high levels of corruption are associated with greater “formalism” in the legal processes of a country and higher levels of frequent regulatory interventions.<sup>49</sup> There is also evidence from developing countries

that regulation can hinder economic performance. An increase in pro-worker regulation in India, for example, was associated with a decrease in output, productivity, and employment in registered manufacturing, while the number of unregistered or “informal” firms increased. Developing nations that have implemented higher levels of regulation also have experienced increases in urban poverty.<sup>50</sup> Developing countries also uniformly lack the human capital needed to regulate complex systems effectively.<sup>51</sup> One study found that environmental officials in China usually have lower status than other government officials. They tend to avoid controversy, to favor politically connected enterprises, and to pursue regulatory action against mainly less powerful or less well-connected entities.<sup>52</sup>

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In India, regulatory failures are particularly dramatic in the electricity sector, an area that would come under strict regulation in an international cap and trade system. Farmers receive electricity virtually for free, making them insensitive to cap and trade restrictions, and other customers routinely steal electricity, costing suppliers an estimated \$4 billion per year. According to one report, utility employees who conspire to steal electricity can earn many times their annual salary in bribes.<sup>53</sup> Furthermore, state governments tend to appoint political cronies to regulatory

positions; and as a result, the regulatory commissions have been found to spend as much as 17 percent of their expenditures on external consultants.<sup>54</sup> State governments further influence the regulatory process by asking state-controlled utilities not to file for tariff revisions at politically inconvenient moments. They also direct state-owned generating companies to sell power to distribution companies at deep discounts, even at the expense of incurring losses, so that no tariff revision at the distribution end is necessary.<sup>55</sup> Given that basic electric utility regulation in India is barely functional today, it is hard to imagine adding the level of regulatory oversight necessary to make a cap and trade system function.

Nor is it reasonable to imagine China implementing an effective cap and trade system any time soon — even though the U.S. government is working hard to build institutions and infrastructure to do just that.<sup>56</sup> In recent years, China’s inability to regulate has been legendary. From contamination in the Songhua River caused by an explosion in a petrochemical plant, contamination in a batch of the drug Heparin that killed 19 people in the United States, and contamination in pet food, toothpaste and the paint on children’s toys, China has gained an international reputation for lax or nonexistent regulation. In the environmental area, China has the world’s worst air pollution problem, and hundreds of millions of people drink contaminated water on a daily basis. Almost one-fourth of China’s land is affected by acid rain.<sup>57</sup> The poor quality of China’s air became international news when many athletes seriously considered skipping the 2008 Beijing Olympics, and the Chinese government had to shut down factories and restrict the use of vehicles for days in order to get air quality down to acceptable levels for the athletes.

49 See, for instance, “The Regulation of Labor,” by J.C. Botero, R. La Porta, F. Lopez-de-Silanes, A. Shleifer, in *Quarterly Journal of Economics*, 119(4): 1339-82 and “What have we learned about the causes of corruption from ten years of national empirical research?” by D. Treisman, *Annual Review of Political Science*, Vol. 10: 211-244.

50 “Can Labor Regulation Hinder Economic Performance? Evidence from India” by Timothy Besley and Robin Burgess, *Quarterly Journal of Economics*, 119 (1).

51 “Wanted! Good Regulators for Good Regulation: An evaluation of human and financial resource constraints for utility regulation,” A Report for the World Bank, 2005.

52 *Environmental Regulation in China*, by Ma and Ortolano, Rowman and Littlefield, 2000.

53 “A Better Investment Climate for Everyone,” World Bank Development Report, the World Bank, 2005.

54 “Electricity Governance Initiative — India” 2005 and “A Good Beginning but Challenges Galore: A Survey-based Study of Resources, Transparency and Public Participation in Electricity Regulatory Commissions in India,” Pune: Prayas Energy Group.

55 “Regulatory Experiments in the Indian Power Sector: Missing the Wood for the Trees,” in A. Singh (eds) *Administrative Reforms: Towards Sustainable Practices*, Sage Publications 2005.

56 See <http://www.epa.gov/airmarkt/international.index.html#china>.

57 “Cleaning the Air in Developing Countries,” by K. Bolt, S. Dasgupta, and D. Wheeler, *Forum for Applied Research and Public Policy*, 2001, Vol. 16, #3, Fall. And, “Looking at the Songhua River Incident from an Environmental Regulatory Governance Perspective: A Long-standing Issue,” *Li China Perspectives*, Vol. 7, #1 (March 2006) 21-35.

China's poor environment is not due to a lack of laws and agencies. Since 1979, China has had in place a large network of environmental protection agencies at all levels of government. They have promulgated dozens of environmental laws and created eight major pollution programs. Nonetheless, China's environmental quality has deteriorated, not improved. One reason is that China's EPBs (Environmental Protection Bureaus) are subordinate to local governments. Not only do they have to compete with other government agencies for funding and influence, but their enforcement often conflicts with a primary goal of local government officials, who are rewarded based on the rate of economic growth in their jurisdictions. Thus, economic growth tends to trump regulatory enforcement. Finally, the EPBs suffer from a lack of human and technological capital. In some cases, monitoring stations are actually contracted out to the industry they are monitoring, causing significant and obvious conflicts of interest.<sup>58</sup>

A study by KPMG, the global tax and auditing services firm, summed up the regulatory situation in China, and the conclusions apply to many of the world's other developing nations. "On paper, China's environmental laws and regulations are excellent — as good as anywhere in the world... However, when it comes to overseeing the operations of older and smaller plants, the rules are often implemented poorly or not at all."<sup>59</sup> A cap and trade system presupposes the ability to distribute initial permits in an honest and non-political way (a problem for modern democracies as well as for developing countries). It pre-supposes the capacity to monitor the behavior of large and powerful enterprises. And it pre-supposes the capacity to enforce compliance.

Thus, even if India and China are willing to join the international community in a greenhouse gas reduction plan, a cap and trade system would pose enormous implementation and administrative problems. A carbon tax would be far simpler to administer and monitor and thus would be more effective. But China and India are not, in fact, yet interested in participating in any global arrangement that might slow their modernization. As the United Nations General Assembly met to debate climate change, the Chinese Ambassador Yu Qingtai told a reporter, "The United States and the developed states as a whole are the countries that created the problem, caused the problem of

climate change in the first place. In my view, that's what a culprit means."<sup>60</sup> And this past summer, R.K. Pachauri, head of the Intergovernmental Panel on Climate Change, stated that "India can not be held for any emission control. They (developed countries) should get off the back of India and China. We are an expanding economy. How can we levy a cap when millions are living with deprivation? To impose any cap (on India) at a time when others (industrialized countries) are saying that they will reach the 1990 level of emission by 2025 is hazardous."<sup>61</sup>

**The challenge of establishing new modern institutions in developing countries is frequently underestimated. It takes many years to build up such professional capacity, and many years to root out corruption.**

The ability of developing nations to effectively participate in any kind of global climate change scheme is complicated by the fact that a political precondition for American voters will be knowledge that they are not alone. As was evident during the short debate on the BTU tax, maintaining American competitiveness was a key concern. The clarity and lack of volatility in a carbon tax means that the United States can make its own assessments of how well other countries or regions are doing in reducing carbon and place a carbon tax on imports to the United States or exports from those countries. Not only would this assure Americans that they aren't the only ones making sacrifices, but it would send a powerful signal to countries that sign on in name but not in fact that we are serious about global CO<sub>2</sub> reduction.

### **Effectiveness**

Any society-wide plan to fight climate change has to be effective. Effectiveness can be compromised in many ways. The system will not work if too many permits are given out, if the tax is too low, or if over time Congress lowers the tax or increases the number of permits as the result of

58 Li, op cit.

59 "Pollution Incidents Highlight Severe Environmental Risk," by Ian Young, *Chemical Week*, Aug. 30, 2006, Vol. 168, Issue 29.

60 "China says new climate pact must treat rich nations as 'culprits'" by Edith M. Lederer, *AP*, Feb. 16, 2008.

61 "Get off India's Back, Pachauri Tells Developed Nations," *Economic Times*, July 8, 2008.

political pressure. There also are signs of effectiveness for the short term, such as the building of coal plants. Since there is, as yet, no effective technology for coal sequestration and since coal is the major planetary culprit in climate change, any proposal that includes the possibility of new coal-fired plants has to be suspect.

James Hansen, who along with Al Gore has done more to make the world aware of the climate crisis than anyone else, had this to say about coal in an article in the English newspaper *The Guardian* last year: “Coal is not only the largest fossil fuel reservoir of carbon dioxide, it is the dirtiest fuel. Coal is polluting the world’s oceans and streams with mercury, arsenic and other dangerous chemicals. The dirtiest trick that governments play on their citizens is the pretence that they are working on ‘clean coal’ or that they will build power plants that are ‘capture-ready’ in case technology is ever developed to capture all pollutants.”<sup>62</sup>

While many mainstream environmental groups are still behind the cap and trade movement, many of the further left groups are skeptical. Rather than break ranks, in recent days groups such as [moveon.org](http://moveon.org) have been organizing to “improve” the Waxman-Markey bill. Underlying these and other concerns is the feeling that a cap and trade system might end up creating new wealth for the financial sector without doing anything to reduce CO<sub>2</sub> emissions after all.

### The Way Forward

If we can design a policy that is transparent and easy for people to understand, puts an effective price on carbon, and reimburses average Americans for all or nearly all of their increased energy costs, we have a chance to reverse climate change in a timely manner. A system that does not

**The ability of developing nations to effectively participate in any kind of global climate change scheme is complicated by the fact that a political precondition for American voters will be knowledge that they are not alone.**

raise prices and that does not deal with coal is a system that will waste time, and we have no time to waste.

The biggest problem with a carbon-based tax approach to climate change is the word “tax.” But as we saw in the first congressional debate on climate change, any increases in energy prices that result from governmental action will be called a tax and understood as such. Once past the word “tax,” however, carbon taxes have numerous important advantages compared to cap and trade systems. First, they are predictable and easy to understand. A carbon-based tax could be phased in over a period of five to 10 years. Businesses and consumers would know exactly how much their energy and gas would cost over years, and they could plan accordingly. Politicians would not have to debate for days the cost of the legislation — everyone would know it. Certainty is a valuable commodity in politics, and uncertainty is often a killer. The big disadvantage of a carbon tax is the absence of a cap — but the program could set “hard targets” for emissions reductions, CO<sub>2</sub> emissions could then be evaluated every three to five years, and the tax could be adjusted in order to keep the decline in emissions on target.

The second major advantage of a tax is that its costs to households can be directly offset. Citizens can be told exactly how much more they will have to spend on energy, and they can be told exactly how much less will be deducted from their paychecks in the form of payroll taxes or income taxes. As Robert Shapiro has shown, a carbon tax combined with a payroll tax deduction could be a very effective way of reducing greenhouse gas emissions.<sup>63</sup> For example, a tax-shift strategy could start at \$14 per metric ton of CO<sub>2</sub> and increase to \$50 per ton in 2030, while recycling 90 percent of the revenues in rebates on payroll taxes or payments to all households. Other countries have tried this successfully. Denmark has imposed a carbon tax with great success, and it has also offset the tax by cuts in other taxes.

Deep suspicion of government and government spending will be part of the American political psyche for the foreseeable future. Yet, we have grown accustomed to having the government levy substantial taxes on things that are not good for us — just compare the price of a pack of cigarettes today to its price a few decades ago. To pass a carbon-based tax, the cuts in other taxes would have to be

62 James Hansen, “Coal-Fired Power Plants are Death Factories: Close Them,” *The Guardian*, February 15, 2009, at <http://www.guardian.co.uk/commentisfree/2009/feb/15/james-hansen-power-plants-coal>.

63 “Addressing Climate Change Without Impairing the U.S. Economy,” by Robert Shapiro, Nam Pham and Arun Malik, U.S. Climate Task Force, June 2008.

simultaneous or, preferably, precede the imposition of the carbon tax, thereby creating a situation where a person's take-home pay increases more or less in step with the increases in his or her electricity and gas bills.

A third major advantage of a tax approach to climate change is that it increases the possibility of eventually establishing a global architecture. Governments around the world are not very good at regulation, but they tend to be able to collect taxes and, moreover, they have strong incentives to collect taxes. Richard Cooper has proposed “a uniform, incremental CO<sub>2</sub> tax,” a major advantage of which would be that “compliance would be easy to assess.”<sup>64</sup> The tax-shifting concept articulated by Shapiro *et al.* can work in a wide variety of different economies and different cultures, since it merely involves offsetting the high price of carbon with decreases in other taxes. It is simple to implement and does not require a mature regulatory system and competent regulators.

The major long-term problem with a carbon-based tax may be that it *would* work. People would grow to expect higher and higher energy costs; they would have the incentive to conserve, and businesses would have the incentive to invest in climate-friendly innovation. Thus, over time the good news would be that carbon consumption would decrease. However, the bad news is that revenues would decrease, and the government would have to figure out other ways to pay for its other services. But in the meantime, we could be on the path to serious reductions in greenhouse gases.

Time is running out for us to settle on a policy architecture. A cap and trade system can be designed to reduce its inherent volatility — by placing a floor and a ceiling on prices. It can be designed to reduce its inherent vulnerability to

manipulations in the market — by limiting those who can trade in the permits. In addition, cap and trade systems that involve rebating the vast majority of revenues directly back to consumers — perhaps in the form of monthly rebates — can also help increase public acceptance of higher energy prices. In other words, a cap and trade system can be designed to work more like a carbon tax shift system.

No major policy change has ever occurred without first getting the politics right. This paper has been an attempt to show that the conventional wisdom about the politics of a cap and trade system need to be reexamined and the idea of a carbon tax resurrected. The goal of policymakers in the area of climate change should *not* be the imposition of one architecture or another. If we had a straight carbon tax, we would not need the multiple layers of bureaucracy that a cap and trade system would introduce. Given the urgency of the problem, those who desire immediate action on global warming need to have a “Plan B.” If the bill now moving through Congress fails to pass, we cannot let that be the death of climate change legislation. The goal should be to design a system that will begin to revolutionize our energy use and that Americans, now in 2009, can accept.

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<sup>64</sup> “The Case for a Carbon Tax,” by Richard N. Cooper, in *Architectures for Agreement: Addressing Global Climate Change in the Post-Kyoto World*, edited by Joseph E. Aldy and Robert N. Stavins, Cambridge University Press, 2007.

## About the Author

**Elaine C. Kamarck** is a Lecturer in Public Policy who came to the Kennedy School in 1997 after a career in politics and government. In the 1980s, she was one of the founders of the New Democrat movement that helped elect Bill Clinton president. She served in the White House from 1993 to 1997, where she created and managed the Clinton Administration's National Performance Review, also known as reinventing government.

At the Kennedy School she served as Director of Visions of Governance for the Twenty-First Century and as Faculty Advisor to the Innovations in American Government Awards Program. In 2000, she took a leave of absence to work as Senior Policy Advisor to the Gore campaign. She conducts research on 21st century government, the role of the Internet in political campaigns, homeland defense, intelligence reorganization, and governmental reform and innovation.

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