

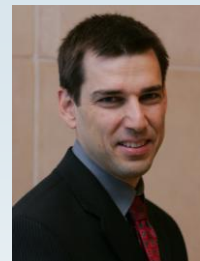
Linking Climate Policy to Fiscal and Environmental Reform

Introduction

Both presidential candidates in 2008 campaigned for an economy-wide cap-and-trade program for greenhouse gases as the centerpiece of climate policy. Senator John McCain was an early and frequent supporter of cap-and-trade, co-sponsoring a number of such bills, including the Climate Stewardship Act of 2003 and the Climate Stewardship and Innovation Act of 2007. He campaigned on a plan to enact an economy-wide cap-and-trade system to reduce U.S. carbon emissions by 60 percent below 1990 levels by 2050. As a senator, Barack Obama never sponsored any climate bills, but he campaigned on a plan to enact an economy-wide cap-and-trade system to reduce U.S. carbon emissions by 80 percent below 1990 levels by 2050.

Despite this apparent bipartisan support, the past three years has seen cap-and-trade legislation fail to make it through the Senate, and has now seen the politics of climate change transformed to the point where a politician's stated support of cap-and-trade is commonly viewed as a political liability. According to polling jointly organized by the Yale Project on Climate Change Communication and the George Mason University Center for Climate Change Communication in

AUTHOR



Ted Gayer
Co-Director,
Economic Studies

Joseph A. Pechman
Senior Fellow

November 2011, only 12 percent of Americans believe “global warming should be a very high priority for the president and Congress,” down from 21 percent in November 2008. Those who think it should be a low priority jumped from 17 to 30 percent during that same period.

While in 2008 the president said that “combating global warming will be a top priority of my presidency” and “putting a price on carbon is the most important step we can take to reduce emissions,” a search of President Obama’s 2012 campaign website finds no mention of cap-and-trade. There is also no mention on the website of “climate change,” “greenhouse gas,” or “global warming.” The website of the leading Republican candidate, Mitt Romney, also makes no mention of climate policy; indeed, the only oblique references concern Romney’s proposals to “eliminate the regulations promulgated in pursuit of the Obama administration’s costly and ineffective anti-carbon agenda” and to “amend [the] Clean Air Act to exclude carbon dioxide from its purview.”

Given this turn of events, a comprehensive climate policy faces long odds in the next administration. A possible path forward for the next president that could have political (as well as economic) appeal is to:

- Focus on the policy that gives us the most bang for the buck, which is to place a price on greenhouse gas emissions. Inflexible regulatory mandates, and government attempts to target subsidies through such things as loan guarantees, won’t work.
- Couple climate policy to fiscal reform, by using the revenues from a carbon tax to fund either deficit reduction or a reduction in economically harmful marginal tax rates.
- Couple climate policy with comprehensive environmental reform, by eliminating, reducing or amending existing costly regulations that could be made largely redundant with a carbon tax in place.

The Economics and Politics of Climate Policy, and the Obama and Republican Positions

On June 26, 2009, the House of Representatives passed the American Clean Energy and Security Act by a vote of 219 to 212, with eight Republicans joining 211 Democrats voting for, and 44 Democrats joining 168 Republicans voting against. The

Senate failed to vote on a comprehensive climate bill. The last major bill, proposed by Senators John Kerry and Joseph Lieberman, was dropped from the Senate calendar in July 2010, after it became clear it would not have enough votes to pass.

The bill that passed the House of Representatives suffered from two key economic (if not political) failings. The first is that it was made unnecessarily complex by including a number of mandates. These included energy efficiency requirements for such things as vehicles and outdoor lighting. It also included a renewable electricity mandate, which would have required electric utilities to substitute renewable energy (such as wind, solar or geothermal energy) for energy-derived fossil fuels. Given that the bill also included an economy-wide cap-and-trade program, these mandates would have only added to the overall cost of the bill without accruing any climate benefits. The attractiveness of an economy-wide cap-and-trade program is that it allows the market the flexibility to find the cheapest sources of pollution reduction in order to meet the capped level of emissions. Cap-and-trade (or a pollution tax) is effective because it raises the cost of activities that emit greenhouse gases, and thus provides market incentives to conserve, to develop and use cleaner fuels, and to innovate cleaner technologies. It was a landmark achievement that the House bill included an economy-wide cap-and-trade program for greenhouse gases. But the additional mandates in the bill would have prescribed where and how these reductions must occur, without affecting the overall level of pollution under the cap. Any reductions achieved through such mandates would be offset by fewer reductions in other sectors, resulting in no net reduction in emissions. The result would likely have raised the cost of the bill with no environmental gain.

The second policy shortcoming of the bill was that it ignored the economic case for using the revenue from the sale of the cap-and-trade allowances to offset existing economically harmful taxes or to reduce the deficit. Using climate revenues from cap-and-trade (or a carbon tax) to reduce economically inefficient taxes or the deficit would result in a substantial decrease in the overall cost of the program. Nonetheless, the bill that passed the House of Representatives called for about 60 percent of the total allowances to be given away over the life of the program. The remaining 40 percent would have been auctioned by the government, but the auction revenue for the most part was not to be used for tax or deficit reduction. The bulk of the value would have gone to such things as subsidizing electric utilities, helping trade-exposed industries and transfers to low-income consumers.

Given that achieving substantial reductions in greenhouse gas emissions is a costly endeavor, it is unfortunate that Congress made things more costly by including unnecessary mandates and by failing to use the cap-and-trade revenue to lower economically harmful taxes and deficits. Still, these policy failings do not explain the political failure of the bill, since it was the cap-and-trade component of the bill (not the mandates or the lack of revenue recycling) that was disparaged by Republican opponents as “cap-and-tax.”

So why did cap-and-trade stir such forceful political opposition, especially from Republicans who presumably should celebrate the use of market-driven policies to achieve pollution reduction? After all, President George H. W. Bush signed into law a cap-and-trade program that is now widely accepted as an extremely successful effort to lower sulfur dioxide emissions from electric utilities at low cost, and President George W. Bush proposed cap-and-trade programs to substantially reduce sulfur dioxide, nitrogen oxides and mercury from electric utilities.

Perhaps Republican opposition to cap-and-trade for climate policy was in part due to the nature of this particular environmental problem. Deciding how the government should respond to the risk of climate change entails considering the uncertainty of the magnitude of anthropogenic climate change, the need for coordination with other countries’ climate policies and the ethics of weighing short-term costs—costs that would be much higher than the existing sulfur dioxide cap or the previous caps proposed for nitrogen oxides and mercury—against the gains in the long term. These factors became more politically challenging over the past three years. In particular, the recession and the continuing weakness in the U.S. labor market have turned political priorities away from environmental causes, and these economic problems now make the expansion of newly available, domestic sources of low-cost fossil fuel a higher priority.

The U.S. unemployment rate, which was only 4.4 percent at the end of 2006, peaked at 10.1 percent in October 2009 and remained extremely high at 9.5 percent in July 2010, which was when the Senate climate bill sponsored by Senators Kerry and Lieberman was dropped from the Senate calendar. Having lost nearly 9 million jobs from the peak, the U.S. economy has since only recovered about 3 million jobs. Assuming that 125,000 people enter the labor market each month, if we were to see 208,000 jobs created per month, which was the average monthly job creation rate for the best year in the 2000s, it would take about 12 years to return to the pre-recession levels. At 321,000 jobs per month,

which is the average monthly job creation for the best year in the 1990s, it would take about five years. Given the magnitude of this problem, it is not surprising that there is less public appetite to incur short-term economic costs to mitigate a long-term environmental problem.

A recent positive economic development in the U.S. has been the innovations in horizontal drilling and hydraulic fracturing technologies. These technological innovations have rapidly changed the amount of natural gas that is recoverable from shale rock and the cost at which it can be recovered. The Energy Information Administration (EIA) estimates that U.S. shale gas production grew at an annual rate of 48 percent over the 2006 to 2010 period, and that total annual oil production is expected to more than double by 2035. And the innovation of horizontal drilling is also expected to contribute to an increase in domestic crude oil production, with EIA estimating an increase from 5.36 million barrels per day in 2009 to 5.95 million barrels per day by 2035. The economic rents of domestic oil and natural gas production are especially appealing during this time of low aggregate demand and a weak labor market.

The economic conditions seem to impact the public's perceptions of the science. Polls conducted by the Pew Research Center indicate that, in November 2011, 28 percent of Americans thought there was no "solid evidence that the average temperature on earth has been getting warmer over the past few decades," up from 21 percent in April 2008. Of the people who think that the average temperature is increasing, the fraction who thinks it is "because of human activity" decreased from 66 percent to 61 percent. While this increased skepticism likely reflects, in part, the shift in economic priorities, the credibility of climate scientists was not helped by emails leaked in November 2009 from the servers of the Climatic Research Unit (CRU) at the University of East Anglia. These emails cast doubt on the impartiality and trustworthiness of some leading scientists in the field, which likely contributed in some part to the loss of voter interest in tackling the problem through policy.

The administration's political response to the changing politics of climate policy was, and continues to be, to sell climate policy as an economic opportunity for the nation—as an engine of "green job" creation. Indeed, the "energy and the environment" issues section of the President's 2012 campaign website focuses almost entirely on job creation, including the top three featured points: the President is "investing in clean-energy jobs," has "helped the private sector create 1 million jobs through public investments that jump-started additional private investment," and the "clean energy sector creates the jobs of today and tomorrow."

But the economics of green job creation are dubious. If a worker for a government-subsidized environmental project is hired away from a private job, then there is no net job creation, and indeed, society's opportunity cost is the worker's wage rate in the private sector, as this reflects the value of the lost output that the worker had been producing. In other words, the labor used for the government-financed program represents a cost, not a benefit, of that program. However, if the government-financed project hires someone who is currently unemployed, then there is a net increase in jobs and no decrease in output elsewhere in the economy. The question then is whether the government-financed environmental project is displacing private-sector jobs. Even given our weak labor market, it is unlikely that all, or even much, of the labor used for the government-financed environmental projects is drawn from the unemployed, especially as many such projects will take many years to acquire the necessary permits, undergo competitive contract selection and negotiate the scope of the work. The clean-energy-related funding of the American Recovery and Reinvestment Act stacks up poorly against other forms of fiscal stimulus.

Sadly, the political focus on green job creation—and on avoiding a politically unpopular increase in energy prices—has led us away from the economically sound policy of placing a price on greenhouse gas emissions through a cap-and-trade program or a carbon tax. Instead, policies have been adopted that either mandate or subsidize alternative fuels and technologies. These are much less cost-effective approaches.

Mandates, such as government-prescribed minimum energy efficiency standards for vehicles, appliances, or light bulbs, increase costs and reduce choice for consumers, but these costs are less salient than the higher energy costs associated with other policies. The administration has justified these standards by claiming that the amount that consumers gain in long-term energy savings outweighs the higher initial cost of the more energy-efficient goods, despite the lack of market demand for such goods. This paternalistic approach shifts environmental policy from an emphasis on mitigating the harm that individuals impose on others towards an emphasis on mitigating harm individuals impose on themselves. This results in less effective pollution control because energy-efficiency standards do not promote conservation; indeed, there is some evidence—known as the rebound effect—that people use products more when they become more energy efficient. Energy-efficiency standards also apply only to new products, which can create incentives to

retain older (and thus less energy-efficient) products. The result is a higher cost per amount of pollution reduced compared with market-based environmental regulations.

Whereas cap-and-trade and pollution taxes rely on the market to identify the lowest-cost means of reducing emissions, targeted government subsidies for certain clean energy producers rely on government officials to determine the best environmental use for each tax dollar. Given the diverse and ever-changing number of decisions involved with energy use, the former decentralized approach of raising the market price for pollution-intensive activities is much more cost-effective than the latter centralized approach of government trying to pick promising cleaner energy alternatives.

In addition to the informational problem confronted by the government, there is also the inevitable role that politics plays in deciding the recipients of government subsidies. The most prominent recent case concerned the solar-panel producer Solyndra, where there is now evidence that the White House pressured the Office of Management and Budget to expedite review of the loan guarantee request and where the announcement of layoffs at the company were timed around the election cycle. Similarly, a leaked memo to the President concerning the renewable energy loan guarantee program illustrated the possible problems of such a guarantee for the Shepherds Flat wind farm, including: the total government subsidies for the wind farm exceeded \$1.2 billion, 76 percent of which was from subsidies aside from the loan guarantee (“double dipping”); the sponsor’s equity was only about 11 percent of the project costs (“no skin in the game”); and the project likely would have moved forward without the loan guarantee (“non-incremental investment”). Nonetheless, the memo provided the politically relevant (yet economically irrelevant) information that the production of 338 GE wind turbines was to occur in South Carolina and Florida. (The loan guarantee was subsequently approved.)

The economics is clear that the most effective climate policy, and the one that would minimize the cost to the economy, is one that sets an economy-wide, government-prescribed, price on greenhouse gas emissions and that uses the resulting revenues to offset economically harmful taxes or deficits. While the price on emissions can be accomplished through either a cap-and-trade program or through a carbon tax, the latter is preferable. The alternative approach of inflexible government mandates or special-interest subsidies (or tax breaks) for certain technologies won’t work.

Policy Recommendations for the Next Administration

Is a renewed push for climate policy feasible for the next administration? Given the politics of the issue—shaped in large part by the high unemployment rate—the chances are doubtful. Yet, the political infeasibility of putting a price on greenhouse gases may weaken as we confront the political necessity of confronting our growing public debt burden.

A continuation of current government policies will lead to a debt-to-GDP ratio that grows to about 170 percent by 2035, with continued and indefinite growth thereafter. Over the infinite horizon, the fiscal gap is over 9 percent of GDP— meaning that keeping the debt-to-GDP ratio at the current level would require an immediate and permanent increase in taxes or a reduction in spending of this enormous magnitude. While there is an important and open question of how much of this gap to achieve through reduced spending, it is undoubtedly the case that tax revenues will have to increase.

Tax reform should therefore be a priority for the next administration. Our current tax system is economically harmful, complex, unpredictable and often unfair. The economically sensible way to increase tax revenues is through comprehensive reform that simplifies the tax code and broadens the tax base, rather than increasing the marginal tax rates on labor and saving. This was the approach taken by the National Commission on Fiscal Responsibility and Reform (co-chaired by Alan Simpson and Erskine Bowles) and by the Bipartisan Policy Center's Debt Reduction Task Force (co-chaired by Pete Domenici and Alice Rivlin). The bipartisan nature of these commissions suggests that a path to political compromise is for Democrats to accept lower marginal income tax rates (even levels lower than those enacted during the Bush administration) and for Republicans to accept higher revenues through base-broadening (including an increase in tax rates for capital gains and dividends).

A carbon tax offers an additional means of efficiently raising revenue for deficit reduction, and thus might have political appeal for otherwise reluctant Republicans as a way to help keep marginal tax rates low while affording an increase in net revenue. A carbon tax of similar stringency to the cap-and-trade bill that passed the House in 2009 would raise about \$60 to \$80 billion annually in the early years, rising to about \$100 billion after about 25 years, before dropping again thereafter. This is a substantial amount of tax revenue, but it would only play a small part in closing our fiscal gap. If one focuses on just the 10-year window, annual carbon tax revenue would be on par with our expected revenue from excise taxes, which amounts to about half a percent of GDP annually. This is slightly

smaller than the revenue loss due to the mortgage interest deduction. Over the longer-term, which is when we face our most pressing fiscal problems due to rising health care costs and the aging population, we could expect the carbon tax to contribute less to closing our fiscal shortfall, since emission reductions would be likely to outpace increases in the carbon tax.

Another, so far under-explored, opportunity for political compromise involves coupling a carbon tax with broader environmental policy reform. Republicans should embrace market-based environmental policies, as they have in the past, as the best means of improving air quality at minimum economic cost. The traditional approach taken by the Environmental Protection Agency (EPA), as prescribed in most of the environmental laws of the 1970s, attempts to achieve environmental improvements through inflexible and economically costly mandates that set uniform technology standards across firms. By demonizing cap-and-trade in the latest debate, Republicans risk a reversion of environmental policy away from market-based approaches toward these more costly options.

This reversion already has begun, as the 2007 Supreme Court decision in *Massachusetts v. EPA* found that the EPA had the authority to regulate greenhouse gases under the existing Clean Air Act. The EPA's 2009 "endangerment finding" that greenhouse gases threaten public health and the environment has led to new EPA regulations to reduce emissions, and EPA plans further regulations, including for refineries and coal-fired power plants. These inflexible, command-and-control regulations will result in considerably higher economic costs to reduce emission than would a flexible market-based approach.

A sensible response would be for Republicans to instead double-down on market-based environmental policies. Not only can (and should) a carbon tax substitute for the default policy of imposing inflexible greenhouse gas standards throughout the economy, it can also substitute for a broader set of other existing environmental and energy regulations. For example, fuel economy standards and energy efficiency standards are largely redundant given a clear and predictable price on carbon. And greenhouse gas reductions stemming from a carbon tax should result in co-benefit reductions in other conventional pollutants currently regulated by the EPA, thus obviating the need for some existing, costly regulations.

With the unemployment rate forecasted to be at about eight percent by the end of 2012, we are unlikely to soon see a shift in political momentum toward a comprehensive

climate policy. But the urgent need for tax reform, and the political appeal of broader environmental policy reform, could provide an opportunity for the next administration to achieve a sensible, cost-minimizing and effective comprehensive climate policy.