Why We Can't Kill Carbon:
The Political Roadblocks of Progressing Carbon Emissions Trading

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By Russell Karas

Introduction

IT WAS supposed to be the perfect marriage between the free-market-wielding right-wingers and the liberal left. Carbon emissions trading, or "cap and trade," is the ideal market-based solution to finance a global reduction in carbon emissions. The European Union is at least trying it, so why has cap and trade recently stalled in the United States and abroad? If correctly designed and implemented, jobs are created, economies are boosted and the carbon emissions that are fueling future climate disasters are reduced. Have Obama and the Senate Democrats already run out of political capital? Can the U.S. coal and oil lobbies crush the hopes and dreams of the recent "green movement"? Other countries have made promises and official statements about action to reduce carbon emissions, but even these ambitious statements fall short of what needs to be done.

The problem is not the effectiveness of a cap-and-trade-system, but the political and economic fears that have stalled domestic actions and could prevent a global solution. Throwing another wrench in the system is the continuing debate between developing and developed nations about who needs to accept responsibility for reducing carbon emissions. These hurdles need to be overcome in order to implement the most realistic solution to climate change – a mandatory global cap-and-trade system. Before getting into the political roadblocks and snafus associated with establishing carbon trading, it is best first to outline the basics of carbon trading.

The Basics of Cap and Trade

If designed correctly and strictly implemented, the carbon cap-and-trade system is brilliant. The final product should act as a cycle, with money generated from the sale of permits and offset credits being reinvested into the economy of the respective country to create more clean energy or carbon-reducing projects. The first part, the cap, is a legal limit on the quantity of greenhouse gases an economy can emit each year.[1] This cap is an important part of the process as it sets the precedent to reach the total emissions reduction goal. Each carbon-emitting entity, e.g. power plants, transportation fleets, and manufacturing plants, have individual emissions limits. These limits are based on the total amount of emissions reductions that their respective host country is looking to achieve.

There are several ways to meet the set emissions cap. One is through the quantity of emissions permits that are provided by countries to companies either for free, through an auction, or both.[2] If a country decides to sell the permits at auction, it can use the profits to implement more clean energy state programs and incentives. These permits, also known as allowances, can be sold by the emitting entity if their emissions levels fall below the cap. These excess permits are sold at market-determined prices and provide a financial reward to companies that reduce their carbon emissions. With permits, stakeholders feel financial pressure from the government and the private sector to develop and implement better energy practices.

The second way provides even more incentive for private sector innovation. A company can meet its emissions cap through the purchase of offset credits. Instead of buying permits from another participant in the cap-and-trade program, companies can also purchase carbon credits from carbon-reducing or carbon-offsetting projects. Examples of offset projects include: increasing CO_2 sequestration potential by protecting or planting trees, capturing methane from landfills, and implementing energy efficient technologies.[3] This is beneficial to members and non-members of a cap-and-trade system. For members, there is the potential to stay within the cap at lower costs than making improvements on their facility. This also helps to increase carbon reduction in countries that are not part of the cap-and-trade system. One of the most important issues surrounding offsets is the verification of the quality of the offset. Regulations must be upheld that ensure "offsets produce measurable, real and additional emissions reductions."[4] Offset projects also lead to increased job creation and technology transfers between developing and developed nations. Fortunately, one group of countries has banded together to develop an effective carbon-trading system.

The European Union

The most important cap-and-trade system to analyze is the European Union Greenhouse Gas Emission Trading System (EU ETS). In January 2005, the EU ETS was launched as the "largest multi-country, multi-sector Greenhouse Gas emission trading scheme world-wide."[5] The system initially covered 11,500 energy installations throughout the EU, including combustion plants, oil refineries, iron and steel plants, and factories making cement, brick, glass, and paper, to name a few. The system only accounted for carbon emissions in the power sector, specified industrial sectors and all combustion facilities with a thermal input of greater than 20 MW.[6] There have been some delays in expanding industries covered by emissions caps in the EU ETS. In 2007, the EU's Environment Commissioner, Stavros Dimas, announced that expanding the carbon cap to the aviation industry would have to wait until 2012, instead of 2011.[7]

The emissions caps in the EU ETS are set by individual member countries, but are subject to review and approval by the European Commission. Tradable allowances, known as European Union Allowances (EUAs), were distributed in amounts equal to the cap.[8] The facilities had to report their CO_2 emissions annually and produce an allowance for every ton of CO_2 emitted. Following the basic concept of cap and trade, the facilities would have to improve their energy efficiency or purchase outside allowances if they emitted beyond the cap. The European Climate Exchange (ECX) was created in order to have a market where tons of carbon could be bought and sold.[9]

There have been mixed results for the EU ETS, but it is the best effort towards an improved cap-and-trade system to date. One negative aspect of the initial phase was that a lot of the allowances were given to the facilities, rather than sold at auction. This over-allocation of CO_2 credits meant that some companies were paying close to nothing to offset carbon.[10] To make matters worse, "power supply bids 'improperly' included the market value of freely allocated allowances, instead of their zero cost, thereby causing higher wholesale power prices and significantly higher profits for some generators."[11] This lesson shows the importance of auctioning off carbon allowances instead of giving them away.

One of the largest initial concerns with the EU ETS was that the trading system was going to hinder large carbon-emitting facilities and raise prices for electric consumers, thus hurting the overall economy of the EU. A 2008 MIT report concluded that there were minimal macroeconomic impacts from the first phase of the EU ETS and carbon reductions were achieved.[12] So far in the

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second phase, the EU has seen more progress as emissions in 2008 declined between 4-6 percent.[13] These numbers would put the EU on track to meets its target of reducing emissions by 20 percent by 2020. There have also been signs of market activity increasing. From 2007-2008 there was an 83 percent increase in tons of carbon traded on the ECX, resulting in a 2008 total market value of $125 billion.[14] The EU ETS should not be duplicated to create a global cap-and-trade system, but instead, its best components should be utilized and its mistakes learned from. So now that this pilot program has been running for a few years, are other countries jumping on the carbon trading bandwagon?

The Tentative Leader

The United States still remains the most important country in finding a global climate change solution, but the domestic political capital needed to pass climate change legislation may be running low. Political capital seems to have become a finite resource, only refilled during times of catastrophe. Unfortunately, even Nobel Prize Laureate President Obama has to worry about re-election in a few years. If he gets key Democrats and Republicans to bend towards accepting health care legislation, it is unlikely that he will have enough left in the tank to convince them to compromise on cutting carbon. Cutting carbon emissions is already hard enough to push on Democratic representatives that represent manufacturing-heavy and coal-producing states.[15] So who would the public choose in a health-care-versus-climate-change-bill battle?

According to public opinion, the United States population would choose health care over climate change. Public opinion is important when examining political issues, as it helps determine how much political capital the President or a representative of Congress has on specific issues. Climate change legislation lacks support in part due to a lack of belief that global warming is a true threat to the American people. According to a Gallup poll conducted in March 2009, 41 percent of Americans believe the seriousness of global warming is exaggerated.[16]

Another poll conducted by WorldPublicOpinion.org, an organization managed by the University of Maryland's Programme on International Policy Attitudes, found that the United States ranked last in how high a priority it should be for their government to deal with climate change. The United States ranked addressing climate change as a high priority only 4.71 out of 10 (10 being most important), preceded by the Palestinian territories at 4.91 and Iraq at 5.14.[17] When the Iraqi public shows more interest in combating climate change, it may be time to take bets away from a stringent climate change bill.

It is not just the United States' lack of concern of global warming that reduces efforts by politicians to pass climate change legislation, but also the stronger public desire to put through health care legislation. A recent Gallup poll puts Americans who support passage of a new health care bill at 51 percent, while 41 percent oppose it or lean toward opposition.[18] While the previously mentioned Gallup poll regarding the severity of climate change showed a decrease in attitude towards addressing global warming, there has been a 5 percent increase in support for health care legislation from April 2009 to October 2009.[19] Political representatives do not ignore these numbers and are more likely to risk political capital on a bill that garners the higher level of public support.

Another roadblock in recent climate change proposals is the fear of losing blue collar jobs such as coal mining. It should be noted that mining coal is a noble profession, but since 1900 it has also accounted for 100,000 accident-related deaths and at least 200,000 deaths from black lung.[20] The fact that jobs would be shifted from energy-intensive jobs such as mining coal scares people. Some job

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loss could occur as the Congressional Budget Office report on the House-passed climate bill, the Waxman-Markey Bill, found that there would be a reduction in total supply of labor.[21] It should be noted that there have been other predictions and reports on the Waxman-Markey Bill, but this is the one that Congress has to take into account when debating final climate change legislation. This fear of job transitions is similar to how many people feared losing their jobs on farmlands during the agricultural and industrial revolutions of the 19th century. The coal and oil lobbies have not been shy in promoting this fear. The coal and oil industries have the money to throw around, spending over $400 million just in the first half of 2008 on marketing and lobbying efforts.[22] Domestically, the coal and oil industry have already set roadblocks and received concessions; a global solution will most certainly run into this issue as well.

The Coal-Powered Dragon

Some scholars would argue that China is equal to or even more important than the United States in fighting global climate change. China overtook the United States as the leader in carbon emissions in 2007.[23] There is no sign that China will slow down, as a recent Energy Information Administration report predicts that China will account for 29 per cent of the world carbon emissions by 2030.[24] The good news for climate change advocates is that China is taking some steps towards reducing these emissions. China plans to continue to outshine the United States as far as fuel economy standards are concerned. While the United States praised President Obama's recent announcement to reach a corporate average of 35.5 miles per gallon by 2016, China set in motion plans to reach a

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corporate average of 42.2 miles a gallon by 2015.[25] Chinese President Hu Jintao has also promised 15 percent renewable energy within the next 10 years.[26] Even though under a one-party system, Chinese political leaders do not need to worry about wasting political capital nearly as much as the United States, Chinese leaders would have more support based on public opinion. China ranked 2nd, 8.86 out of 10, on the recent WorldPublicOpinion.org poll that addressed the priority of government action on climate change.[27] This was the same WorldPublicOpinion.org poll mentioned previously, in which the United States came in last place.

Despite these positives signs that the Chinese government and population have shown, they still do not deserve to be put on the level of the European Union. In September of 2009, the China Beijing Environmental Exchange (CBEEX) announced the creation of China's first voluntary offset standard, dubbed the "Panda Standard."[28] While this appears to be a positive step towards reducing carbon emissions, the executives of the CBEEX have "taken pains to avoid any indication that the move marks the nation's first baby steps toward a national cap-and-trade program."[29] This will basically just allow projects to be developed to create offsets for purchase or trade in external carbon offset programs or for

companies looking to voluntarily offset their carbon emissions. This is not a bad thing, but it does highlight the fact that China is not taking major steps toward establishing a carbon-trading system. The United States, on the other hand, at least has the Chicago Climate Exchange and the Regional Green House Gas Initiative as pilot projects.

The Rest of the World

The European Union, the United States and China are not the only important actors in the fight against climate change. The rest of the world has just as many mixed signs of hope and despair as the three actors already discussed. Japan represents a country that has recently taken a turn for the better.

Newly elected Japanese Prime Minister Yukio Hatoyama has already made ambitious statements to reduce greenhouse gas emissions. Hatoyama has pledged a 25 percent reduction of greenhouse gasses from 1990 levels by 2020, which is the greatest pledge by an industrialized nation thus far.[30] According to Japan's environment minister, Sakihito Ozawa, this new plan could involve carbon offset projects.[31] This would demonstrate that Japan is preparing for and could endorse a more comprehensive global cap-and-trade system. These ambitious plans need to be met with caution, as Hatoyama and his Democratic Party still need to worry about their next election.

Making bold promises after a major political upset is one thing; implementing them is another. Japan's manufacturing sector, specifically its automobile industry, will not exactly help get to the 25 percent reduction goal. Hatoyama will have to be careful with his political capital, as it could run thin if Japanese jobs are put on the line in the name of carbon. It is also important to note that Hatoyama has an estimated $70 million of shares in Bridgestone, a company that prospers when more cars and their rubber tires are on the road.[32] On the other hand, Japan's innovative industries could prove helpful in introducing new clean energy technologies. An example can already be seen with Toshiba testing its newly constructed post-combustion carbon capture plant. This technology removes 10 tons of carbon a day, utilizing an amine-based chemical absorption system that uses less energy than comparable systems in the industry.[33] Japan must continue to innovate to keep high-tech and manufacturing jobs alive, while at the same time combating carbon emissions.

Besides domestic political struggles, a global carbon solution has also highlighted the conflict between developed and developing nations. The million-dollar question is whether the past carbon producers, i.e. developed nations, should be held responsible or the future culprits. Realists around the world are nodding their heads, saying "I told you so," as developing countries focus on relative gains looking for handouts and exceptions. India is in an interesting position, as it ranked 5th in GDP but 166th in GDP per capita in 2008.[34] This means they will be emitting like a developed nation, but still have rural poverty resembling a developing nation. Recently, India took the stand as a developing nation when Prime Minister Manmohan Singh stated that "developed countries must bear 'historic responsibility' for industrial emissions of greenhouse gases they have produced."[35] It is interesting that India demands an equal standing in international affairs and at the same time wants handouts for reducing carbon emissions. This hybrid country needs to either take the responsibility of a developed nation and lead by example, or back off the global stage and receive more "aid" from developed nations.

Although India has not shone as a climate change star in international affairs, it is correct to point out inaction by developed nations. Australia is an unfortunate example of a developed country backing off the carbon fight. The proposed Australian system appeared to improve on the EU ETS in that it would also cover transportation and allow the forestry sector to opt in voluntarily.[36] Another improvement was the government's plan to implement a first year fixed price of A$10 a carbon ton. Following the first year, there would be a transition to a market set price.[37] This would help avoid the EU ETS mistake of giving away free carbon allowances during the initial phase. Unfortunately, the bill advocating this system was defeated this past August. The clash between environmentalists and Australia's natural gas industry could cause a second defeat of climate legislation and perhaps an early election to be called.[38] What at first looked like an example of a developed nation taking strong action has turned into another ambitious plan falling short.

Conclusion

The bottom line of this report is that there are efforts being made toward curbing carbon emissions, but a comprehensive global solution is needed. A global cap-and-trade system offers this possibility, but not if it is a watered-down version. It is hard to see this solution in the near future, as countries are struggling to create domestic carbon-trading schemes. Countries have to overcome limited political capital and economic fears in order to implement national and/or international carbon emissions trading schemes. As more and more countries increase their

efforts, it will be harder for the remaining countries to sit idle.

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So with hope, the debate continues. Will a global carbon-trading scheme ever come into effect? It appears to be the best global solution at this point. It is not politically plausible that a carbon tax will ever be passed in the United States, never mind globally. Like any political or economic system, corruption and misuse could reduce a carbon emission trading system's effectiveness. Regardless, this is a large-scale global problem, which requires an educated leap of faith. Hopefully, something will snap in place in the near future. If not, the solution to future global climate disasters, a global carbon-trading system, will remain a dream. The next generation will deal with the nightmares that result.

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