

Smaller, Simpler and More Stable

Designing carbon markets for
environmental and financial integrity



Executive Summary

The current financial crisis tells a cautionary tale for U.S. policymakers seeking to establish one of the world's largest new commodities markets. Congress is still in the midst of debating new regulations to bring accountability to the financial sector, yet is poised to establish a massive new market in carbon. While current proposals to govern carbon derivatives and derivatives markets in general are a good start, they do not go far enough. Most proposals rely on the faulty assumption that carbon will essentially be the same as other commodities, and should therefore not be subject to any significant additional regulations. However, emissions markets differ from other commodities in several ways; for example, the compliance and regulatory components of emissions trading schemes make them particularly prone to regulatory capture and potential manipulation.

In particular, carbon markets are not likely to behave like past emissions trading schemes. For example, carbon will be orders of magnitude larger than the acid rain market; their sheer size will attract financial speculators and with it, financial innovation, making them more difficult to regulate. Moreover, Congress seems to be designing carbon markets in ways that make them even more unconventional, for example by allowing a large proportion of offset credits, allocating allowances for free, and establishing a strategic reserve and carbon trigger prices. These design choices will compromise the environmental and financial integrity of the system and make governance inherently more difficult.

Fortunately, since the system is being created via legislative fiat, Congress does not have to design the system to mimic other commodities/derivatives markets, which have tended to be volatile, prone to excessive

speculation, and hard to regulate. But first, policymakers must see through the false arguments posed by Wall Street lobbyists, whose policy recommendations are prescriptions for self-enrichment, often wrapped in green rhetoric. For example, carbon trading proponents claim that is imperative to ensure liquidity for market functioning, and argue for large markets with unlimited participation from financial institutions. Yet the acid rain trading system, which covered a much smaller universe of entities, was not dominated by financial speculators (in most years, the majority of sulfur dioxide trades occurred between related entities¹), and never experienced significant problems with market clearing.

In general, the more that “bells and whistles” are included in carbon market design, the more chances there are to game the system. Therefore, if carbon trading is to be part of a national climate change strategy, policymakers should design carbon markets to be as simple as possible. In particular, policymakers should limit offsets, as well as the level and type of participation from financial speculators. The best way to reduce volatility, and the need for difficult-to-regulate derivatives, is to adopt a managed price approach, in which regulated entities would be able to frequently purchase allowances at a set and predictable annual price.

In addition, Congress should introduce specific financial regulations to govern any carbon trading system, and regulators should adopt the goal of ensuring environmental integrity as a regulatory objective for this market. Finally, Congress should adopt existing derivatives regulation proposals (for example regarding mandatory clearing, exchange-based trading, position limits, etc.) and ensure that they are as robust as possible.

1 Environmental Protection Agency, 2008 Emission, Compliance and Market Analyses, http://www.epa.gov/AIRMARKET/progress/ARP_2.html

Written by Michelle Chan of Friends of the Earth – US, which is responsible for the content and opinions expressed in this report. Thanks to Nick Berning, Elizabeth Bast, Karen Orenstein and Matthew Heberger for editing assistance; and to JML Design for design and layout.

Soft copies of this report can be downloaded at www.foe.org
September 2009

Friends of the Earth is the U.S. voice of Friends of the Earth International, the world's largest grassroots environmental network. Friends of the Earth International unites 77 national member groups and some 5,000 local activist groups on every inhabited continent.

Friends of the Earth
1717 Massachusetts Avenue, Suite 600
Washington, DC 20036
www.foe.org
Tel: 202-783-7400 • Fax: 202-783-0444

Introduction

In March 2009, Friends of the Earth published a report titled *Subprime Carbon?: Rethinking the World's Largest Derivatives Market*. The objective of the report was to paint a realistic picture of what carbon markets will look like if leading cap-and-trade bills pass, and how lessons learned from the current financial crisis can be applied to carbon markets. Its major conclusions include:

- If the United States adopts carbon trading on the scale envisioned by most federal cap-and-trade legislation, carbon will become what Commodities Future Trading Commissioner (CFTC) Bart Chilton called “the biggest of any derivatives product.”¹ By 2020, carbon may be worth up to \$2 trillion in the U.S.,² and will likely be characterized by the complexity and sophistication that is typical of today’s modern financial markets.
- Carbon trading will be dominated by speculators, which sets the stage for a speculative bubble in carbon. As evidenced by the recent financial crisis, speculative bubbles can result in excessive levels of financial innovation, risk taking, and the build-up of subprime assets. A large market dominated by gamblers provides fertile ground for the development of complex and opaque products that can unwittingly spread subprime carbon through the broader financial marketplace.
- “Subprime carbon” — called “junk carbon” by traders — is a term for contracts to deliver carbon credits that carry a relatively high risk of not being fulfilled. They are

comparable to subprime loans or junk bonds, debts that carry a relatively high probability of not being paid. Carbon offset credits (carbon commodities based on projects designed to reduce greenhouse gases) will likely be traded as derivatives and can carry particularly high risks. One of the reasons is because sellers often make promises to deliver carbon credits before the credits are issued, or sometimes even before greenhouse gas emissions reductions have been verified.

- The financial crisis has clearly demonstrated that significant parts of the financial system, such as the derivatives markets, are under- or unregulated. New regulations have not yet been established to govern derivatives, and it would be imprudent to so quickly establish a massive and complicated derivatives market and foist it upon an untested regulatory regime.

Since the publication of *Subprime Carbon*, the U.S. House of Representatives has passed the American Clean Energy and Security (ACES) Act, climate legislation which establishes a large and complex cap-and-trade system. This paper explores in further depth the **regulatory challenges posed by a large and complex carbon trading system; examines whether emerging derivatives regulations are adequate to oversee this system; and shows how, if policymakers are to establish a cap-and-trade system, careful choices in carbon market design can minimize environmental and financial failures.**

An Undecided Regulatory Future

The current economic crisis has prompted a round of **financial regulatory reform, an effort which is still in process**. In general, financial policymakers seem to agree that self-regulation, which characterized financial market governance for the last decade, is inadequate and that the financial sector must be made more accountable. But it is unclear whether policymakers will take bold enough steps to ensure the sufficient oversight of Wall Street.

Congress and the Administration still need to agree on a set of broad policy directions for the financial markets. For example, many economists have called for the adoption of

counter-cyclical policies, such as managing interest rates to prevent excess leverage. If so, such policies could potentially mitigate the impact of future asset bubbles, whether in real estate or carbon. Policymakers will also be considering major institutional reforms. For example, the patchwork of regulations exposed by the crisis has prompted calls for a new macro-prudential oversight body to monitor and respond to systemic risks and enhance regulatory coordination. Such a body would presumably also oversee carbon markets, which could have a similarly long – if not longer – value chain than mortgage markets.

1 Minder, Raphael, “Regulator forecasts surge in emissions trading,” *Financial Times*, 10 March 2008.

2 “Point Carbon: Global Carbon Market Worth EUR 2 trillion (USD \$3.1 trillion) by 2020,” Press release, Point Carbon, May 22, 2008 at <http://www.reuters.com/article/pressRelease/idUS187544+22-May-2008+BW20080522>

Finally, policymakers are debating **new derivatives regulations**, which could have clear impacts on carbon markets. General derivatives regulations have been proposed by:

- *Treasury Department*: In August 2009, the Administration proposed legislative language for OTC, or over-the-counter, derivatives. The proposal requires standardized OTC trades to be centrally cleared, and encourages more OTC deals to be standardized and exchange-traded by imposing higher capital and margin requirements on OTC trades. Many carbon offset credits will likely be traded OTC.
- *House Agriculture and Finance Committees*: These two committees, which share derivatives jurisdiction, have also developed principles for OTC derivatives regulation. Like the Treasury Department proposal, their legislation will require mandatory clearing and provide incentives for moving OTC trades onto exchanges. In addition, the principles would seek to reduce excessive speculation by imposing position limits, and take steps to address the “London loophole,” which allows U.S. traders to use foreign boards of trade that are subject to relatively fewer regulations.
- *American Clean Energy and Security Act (ACES)*: ACES, the climate change bill passed by the House in June 2009 includes general derivatives regulations. Some of these provisions, such as mandatory clearing and closing the London loophole, mirror measures found in the abovementioned proposals. In addition, ACES would close the “swaps loophole” by requiring energy swaps to be cleared and subject to position limits; and ban naked credit default swaps (entering into swap contracts without having any risk exposure on the underlying debt), a proposal which House Financial Services Chair Barney Frank reportedly supports.

In addition, policymakers have proposed **regulations to govern carbon derivatives in particular**:

- *House Agriculture Committee*: The derivatives bill passed in February 2009 by the House Agriculture Committee includes some specific references to carbon. It defines carbon as *not* an “exempt commodity,” thus subjecting it to higher levels of regulation. In addition, this bill gives oversight authority to the Commodities Future Trading Corporation (CFTC), and instructs the CFTC to cooperate with the Department of Agriculture to “maximize” credits for carbon sequestration.
- *American Clean Energy and Security Act (ACES)*: ACES puts the Federal Energy Regulatory Commission in charge of the carbon cash/spot market, and the CFTC in charge of carbon derivatives. It establishes a new class

Cash or spot market – a market in which traders buy commodities for cash and sellers deliver it immediately

Over the counter trading – trading between two parties, sometimes through a dealer. OTC markets have historically not been well regulated.

Exchange trading – trading on a formal, regulated exchange. In order for commodities to be traded on exchanges, they have to be standardized.

Clearing – a method of trading where a “middleman” serves as the buyer for and seller for transactions; standardization makes trades go faster. Traders usually have to put up money with the clearinghouse, and this protects them against the risk that the counterparty will default.

Capital requirements – the amount of cash or liquid assets a trader has to have on hand to trade

Margin requirements – the amount of money a trader has to deposit into an account before purchasing commodities with borrowed money

Position limits – the total number of contracts or units of commodities that one trader can hold at a time

Energy swaps – a swap is an agreement between two parties to exchange cash flows; one example of an energy swap is an agreement to exchange an energy product with a floating price for one with a fixed price

of commodity called “energy commodities,” which includes carbon, and subjects these commodities to new regulations (similar to those governing agricultural commodities). Spot carbon trading would occur on regulated markets, and carbon derivatives would have to be traded on exchanges and go through clearinghouses. It also sets default rules on aggregate carbon position limits and sanctions for violating anti-fraud and manipulation rules. Among other things, it requires regulators to perform surveillance activities over carbon markets.

- *Carbon Market Oversight Act*: In July 2009, Senators Feinstein and Snowe introduced carbon market regulation legislation that includes many of the same provisions as the ACES bill. However, it would give all oversight to the CFTC, and require the establishment of (rather than just standards for) a clearinghouse for carbon. It also would classify standardized OTC swaps as derivatives, thus subjecting them to regulation; and require carbon traders to meet minimum professional standards. This bill will reportedly form the basis of the broader climate change bill to be introduced in the Senate Environment and Public Works Committee.

Why Proposed Regulations Are Necessary But Not Sufficient

These proposed regulations to govern derivatives in general, and carbon derivatives in particular, are a welcome development. They are necessary, but ultimately insufficient to ensure environmental and financial integrity in carbon markets.

First, most of these regulations rely on the assumption that carbon is essentially equivalent to other commodities and therefore should not be subject to substantial additional regulations. In particular, many policymakers mistakenly believe that carbon markets will behave like the acid rain trading markets, which did not pose particular regulatory problems (with the notable exception of the Sholtz fraud case in California's nitrous and sulfur dioxide trading program). But more importantly, these regulations are insufficient because Congress is designing a carbon trading system that will be inherently difficult to govern.

Emissions Markets Are Not the Same As Other Commodities Markets

First, unlike other markets, emissions trading schemes create a commodity which has one sole producer and supplier (as the government is the only source of allowances, or emissions permits), and no apparent production and storage costs. Traditionally, these cost factors are value drivers in other commodities markets. **But without such market fundamentals to tether costs, it is difficult for market monitors to determine whether efficient price discovery is occurring.** Moreover, in a system where supply is supposed to decline over time, it is difficult for regulators to determine whether or to what extent prices are rising due to normal supply dynamics or excessive speculation.

Second, as the U.K. Financial Services Authority noted, "The key differences in the emissions market, compared with other commodities markets, are that it is a politically-generated and managed market and that the underlying [instrument] is a dematerialised allowance certificate, as opposed to a physical commodity. Also, there is a compliance aspect to the underlying market."³ **It is precisely these politically generated and managed aspects of carbon trading, as well as its compliance aspects,**

which make carbon markets particularly vulnerable to inappropriate lobbying and regulatory capture (when regulatory agencies become dominated by the industry they are supposed to be overseeing).

For example, the compliance aspect of an emissions trading scheme means that governments must ensure absolute integrity in the setting and release of information on individual companies' emissions caps (i.e. ensure that this information is not leaked early to some traders), and in the verification of companies' actual emissions (i.e. ensure that verifiers will not be corrupted). The political aspect of emissions trading means that policymakers must also not succumb to political pressure, for example by over-allocating allowances to covered entities, thus making the cap too loose. In other words, for carbon trading to be successful – from an environmental, financial and governance perspective – policymakers and market regulators must be insulated from corruption and political influence. Unfortunately, some of the most sobering lessons from the financial crisis are how conflicts of interest and failures in checks and balances occurred on a massive scale, and how deregulatory achievements came as a result of aggressive political lobbying and campaign contributions. Climate change deliberations in the U.S. have already been heavily influenced by Wall Street and corporate lobbying.

But despite these unique aspects of emissions trading schemes, Wall Street generally asserts that carbon markets do not have particular characteristics that warrant specific surveillance activities, regulations, and restrictions. For example, the International Swaps and Derivatives Association argues that the CFTC's large trader reporting system "should be sufficient to enable oversight authority to monitor participant behavior to determine whether there is improper conduct."⁴ Similarly, an International Emissions Trading Association (IETA) letter regarding the regulation of the European Union Emissions Trading Scheme (EU ETS) stated that the EU ETS market should not be subject to particular rules, but instead "be regulated by general European legislation aimed at regulating financial and commodities markets."⁵

3 UK Financial Services Authority Commodities Group, "The Emissions Trading Market: Risks and Challenges," March 2008 at http://www.fsa.gov.uk/pubs/other/emissions_trading.pdf

4 International Swaps and Derivatives Association, 2009 completed questionnaire to the Committee on Agriculture, U.S. House of Representatives, at <http://www.isda.org/speeches/pdf/ISDA-Response-House-AG-Committee-Questionnaire.pdf>

5 International Emissions Trading Association, letter to the Ministry of Environment, Energy, Sustainable Development and Land Management, 9 December 2008 at <http://www.ieta.org/ieta/www/pages/getfile.php?docID=3121>

Although policymakers should adopt the majority, if not all, of the derivatives regulations put forth by legislators and the Administration, Congress must go further by adopting additional rules designed to address the ways in which carbon is different from other commodities.

Carbon Trading Should Not Be Compared with Acid Rain Trading

Carbon trading proponents often compare carbon markets to sulfur dioxide and nitrous oxide markets, which were widely credited with reducing acid rain in the United States.

This comparison is flawed for a number of reasons.

First, acid rain trading markets have been relatively small and historically dominated by a limited number of U.S. power plants. In contrast, **carbon markets will be orders of magnitude larger, which will change their character dramatically.** The ACES bill would create a carbon trading program that would, during the first year of its existence, issue 37 times more allowances than were issued during the last 14 years of the acid rain trading program.⁶ (This figure does not account for carbon offsets, which if used to the maximum limit, would mean that 6.6 trillion units of carbon would originate in the primary markets in 2012, over 50 times the cumulative number of allowances issued under the acid rain program.)

While financial speculators largely ignored the small acid rain market, the sheer size of the carbon markets will attract financial speculators. Their participation will be facilitated and accelerated by investment banks such as Goldman Sachs, who will create products and services geared towards institutional investors. For example, at financial conferences, carbon is already being marketed as a new asset class for investors such as pension funds, and products such as exchange-traded funds and indexes have already been developed for investors.

Second, **financial markets have become vastly more complex and exotic since the early 1990s, when the U.S. introduced sulfur-dioxide trading.** Today, Wall Street is capable of engineering financial products at a faster rate than regulations can handle. Whereas acid rain trading markets have been small and relatively straightforward, the excitement over carbon markets has already sparked “financial innovation” in Europe. For example, in November 2008, Credit Suisse announced a securitized carbon deal in which it bundled together carbon credits

from 25 offset projects *at various stages of U.N. approval*, sourced from three countries, and five project developers.⁷ It then split these assets into three tranches representing different risk levels and sold them to investors.

Although the Credit Suisse deal was relatively modest, future deals could become bigger and more complex, bundling hundreds or thousands of carbon credits of mixed types and origins, perhaps enhanced with agreements to swap more risky carbon credits for safer assets (such as government-issued emissions allowances) as “insurance” against junk carbon. Moreover, it could be as difficult, if not more, to analyze the quality of the numerous underlying carbon offset projects as it is to analyze U.S. mortgages, and carbon securities may be less suited to financial modeling.

Third, the **acid rain trading program was a “plain vanilla” emissions trading scheme which never included a large proportion of offsets.** The concept of regulated entities buying offsets from outside, unregulated entities began as an experimental idea that embattled international negotiators agreed to in the late stages of the 1997 Kyoto Protocol talks. Offsets were intended to give developed countries flexibility in meeting their greenhouse gas reduction targets. But they have gone from a minor idea to a central one; under the ACES bill, some 30% of carbon traded in the U.S. could come from offset credits rather than allowances. As described in the *Subprime Carbon* report, offsets could become a major source of subprime carbon — promises (forwards) to reduce greenhouse gas emissions that are at risk of failing and collapsing in financial value.

Finally, the U.S. acid rain trading program is often cited as “proof” that a similarly structured emissions trading program will be appropriate for climate change. However, **from an environmental standpoint, the comparison between acid rain and carbon trading is faulty** for two key reasons. First, the problem of acid rain was relatively easy to solve by switching from high- to low-sulfur coal and purchasing scrubbers. Solving climate change is not nearly as simple, and will demand significant new investments to develop and deploy low-carbon technologies throughout the economy. The fact that U.S. power companies switched to readily available fuels and installed scrubbers, thus dramatically reducing sulfur dioxide emissions, is not proof that emissions trading will mobilize the capital needed for widespread technological innovation to reduce greenhouse gas emissions.⁸

6 Figures taken from EPA data on sulfur dioxide emissions allowances allocated 1995-2008 at http://www.epa.gov/airmarkets/progress/ARP_2.html

7 Szabo, Michael, “Credit Suisse to offer largest structured CO2 deal,” *Reuters*, 22 Oct 08.

8 Williams, Laurie and Zabel, Allan, “Why cap and trade is not the answer,” *Environmental Finance*, March 2009.



2008 UN Climate Negotiations in Poznan, Poland. A representative of the Kuna people talks about the impacts of Reduced Emissions from Deforestation and Degradation (REDD) projects on Indigenous Peoples in Panama. Carbon offsets from REDD projects will likely enter a U.S. carbon trading system.

Congress Is Designing Carbon To Be Even More Unusual, and Risky

Not only will carbon trading be significantly different from the acid rain program, policymakers are designing carbon markets in ways which make them even more unconventional than other commodities. These market design choices further compromise the environmental and financial integrity of the system, and make “plain vanilla” commodities regulations even more insufficient.

For example, the ACES bill not only allows carbon offsets to be used as a compliance instrument, but **it permits the riskiest types of carbon offsets to be traded.** ACES allows half of all offsets (perhaps even more) to come from developing countries, where a host of commercial and non-commercial risks (e.g. currency risk, sovereign risk, country risk, etc.) increase the chance of subprime carbon.

ACES also envisions allowing some offsets to come from forest protection, also known as Reducing Emissions from Deforestation and Degradation (REDD). REDD projects would be able to generate offset credits, in theory, by protecting developing country forests. (Degraded forests can release carbon dioxide, but if saved, forests can sequester carbon.) But forest carbon stocks are notoriously difficult to measure and few — if any — tropical forest countries currently have the capacity to enact adequate measurement systems for deforestation or greenhouse gases. Moreover, forest carbon sequestration is inherently impermanent and highly vulnerable not only to natural disturbances, like forest fires, but also to political and economic volatility. These forest offset credits are not accepted under the Kyoto Protocol’s carbon offsets program, nor in the EU ETS, due to the problems of impermanence, leakage (where efforts to reduce emissions in one place shift emissions to another location or

9 Gallagher, Emily, “The Pitfalls of Manufacturing a Market: Why Carbon Will Not Just Sit Down, Shut Up, and Behave Like a Proper Commodity,” *New America Foundation*, 14 July 2009.

uncapped sector), and technical constraints in monitoring forest-based emissions.

ACES also freely allocates some emission allowances, which distorts markets. As Emily Gallagher of the New America Foundation writes, in the EU ETS, “Free allocation has been a key driver for the strange behavior of carbon prices as it has reduced the scarcity of tradable allowances.”⁹ Free allowances mean that emitters do not worry about price volatility as they reach term dates (the dates when emitters must surrender to the government a quantity of carbon allowances and/or credits equal to their emissions) and do not hedge against price fluctuations as much as they would with other commodities.

In order to ensure that carbon prices do not get too high, ACES also creates a strategic carbon reserve, comprised of borrowed allowances from the future and dubious forest offset credits. The government can tap this reserve and flood the primary market if the price reaches a certain trigger point (60% higher than a three year rolling average of carbon prices). However, **the strategic reserve can set up a potential conflict of interest.** Many banks own equity stakes in carbon offset companies on one hand, and also serve as carbon brokers or sector analysts on the other. This may create a temptation to bid up carbon prices in order to hit the trigger, unleashing massive demand for carbon credits, and thus enriching the offsets part of their business.

Another potential problem with the strategic carbon reserve is the possibility that speculators may “break the carbon bank.” This is a real possibility in other commodity markets, index funds have become dominant players. They now hold an average about 40% of outstanding commodity contracts, and their dominance has created

Long-only index investors – Institutional investors such as pension funds spread out their investments across a wide range of assets. A commodity index is a basket of various commodities, which investors can buy to gain exposure to this asset class. Commodity indexes are typically “long-only,” that is, designed to hold commodities for the long term in hopes that prices will increase. Investors have no intention of actually taking possession of the commodities, so just before a futures contract is up, and the commodity is due to be delivered, the fund manager will “roll it forward” by selling the contract and immediately buying more futures.

excessive speculation and pushed up commodity prices. If the U.S. introduces a large cap-and-trade system, leading commodity indexes are likely to include carbon as a component, creating price-insensitive demand. This unrelenting demand can break the carbon bank by pushing carbon prices up to the trigger price, forcing the strategic reserve to be emptied. The only way to pay for that is to refill the reserve with borrowed allowances and dodgy forest offset credits. This would essentially break the emissions cap, undermining the environmental objective of the system. Notably, all these different aspects of carbon market design — offsets, high levels of free allocation, strategic reserves and carbon trigger prices — do not exist in the acid rain trading program, and certainly do not exist in other commodity markets. Correcting these anomalies, and making the system simpler and smaller, would arguably do more to ensure its integrity than just adopting carbon market regulations.

The Wall Street Lobbying Agenda: Good for Them, But Bad for the Planet

Wall Street favors a suite of complementary market design and regulatory options which, unsurprisingly, maximize its own interests. Their overall goal is to create large and liquid markets, with unlimited offsets and minimal regulation. But obviously, they rarely couch their agenda in terms of self-enrichment. Rather, Wall Street argues that these recommendations are necessary to best serve the environment. For example, an offsets trade associ-

ation claims that trading of international offsets can “broaden the collaboration between nations that will be required to protect the climate over the long term.”¹⁰

The top elements of Wall Street’s carbon markets lobbying agenda include:

- *Large, liquid markets.* Most of all, Wall Street wants project, primary, and secondary carbon markets to be

¹⁰ International Emissions Trading Association, “Making the Case for a Federal Greenhouse Gas Offsets Program,” June 2, 2008 at <http://www.ieta.org/ieta/www/pages/getfile.php?docID=2968>

very large and liquid. Obviously, higher volume markets amount to more trades and increased fee revenue for brokers and traders. There are many ways to achieve this, including allowing carbon trading “to be open to all market participants,” not just emitters.¹¹ A key rationale for creating large and liquid markets is to allow markets to clear and to prevent a single trader from cornering the market.¹² But doing so would also make the system much harder to regulate, and subject it to problems such as excessive speculation.

- *Unfettered access to offset credits.* Carbon offset trade associations naturally want as many offsets as possible to be allowed. This benefits banks, which are not only building offset businesses, but looking to generate higher fees from non-standardized offset derivatives. Carbon trading proponents have seized on the use of offsets as a key cost containment strategy, asserting that “all offsets meeting robust environmental standards should be available for use,”¹³ including “broad access to [both] domestic and international emission offsets.”¹⁴ In April 2008, the Carbon Markets and Investors Association (CMIA) went so far as to request that the European Union adopt an amendment to its Emissions Trading Scheme to replace auctioned allowances with international offset credits.¹⁵ However, carbon offset credits run a relatively high risk of not delivering carbon reductions. In addition, allowing emitters to buy their way out of making emissions reductions delays the transition to a low-carbon economy and diminishes the promise of green jobs.
- *Price volatility.* It is no surprise that although emitters and policymakers have expressed concern about market volatility, Wall Street is not overly concerned about it. After all, price volatility is needed to create arbitrage (or hedging) opportunities. CMIA maintained that the best way to reduce price volatility actually is to allow “free flowing” supply and demand in carbon markets.¹⁶ But from an abatement perspective,

volatility increases costs for emitters,¹⁷ and they prefer stable and predictable carbon prices. Carbon markets can be designed to be inherently more stable, but Wall Street naturally prefers using derivatives, even though they are difficult to regulate.

- *OTC trading.* It may seem politically unwise for Wall Street to insist on over-the-counter carbon trading when the public and policymakers are so aware of the role that the lightly regulated OTC markets played in the current financial crisis. But carbon trade associations support over-the-counter trading since that is how many carbon offset deals will be done. Both the IETA and the ISDA argue that OTC trading is unavoidable because carbon prices will be volatile and “many carbon offset transactions and structured allowance trades are non-standard and cannot be listed as contracts on a commodity exchange.”¹⁸ They of course acknowledge the role that exchanges can play, but they also strongly advocate for a vigorous OTC market, as brokerage fees are likely to be higher for OTC deals.
- *No requirement for OTC deals to go through clearinghouses.* Again, it would seem politically imprudent to advocate against current proposals to bring more accountability to the OTC markets, given the fact that AIG went under because it gambled recklessly with bilateral OTC derivatives deals. But both the IETA and ISDA argue that traders should be able to make OTC trades bilaterally, and not be required to go through clearinghouses. Their rationale is that clearing “presents significant obstacles since the timeframes for delivery and other terms of carbon derivatives needed to effectively hedge the emissions risk of new power plants will vary substantially from project to project, thus making the virtually instantaneous risk assessment required nearly impossible.”¹⁹

But “unnecessarily” slowing down transactions by requiring additional due diligence is one of the financial industry’s most common arguments against regula-

11 Carbon Markets and Investors Association, “Market Design Principles,” at <http://www.cmia.net/mdp.php>

12 Letter from International Emissions Trading Association to Representative Henry Waxman et al, April 16, 2009 at <http://www.ieta.org/ieta/www/pages/getfile.php?docID=3274>

13 International Emissions Trading Association, “Making the Case for a Federal Greenhouse Gas Offsets Program,” June 2, 2008 at <http://www.ieta.org/ieta/www/pages/getfile.php?docID=2968>

14 Carbon Markets and Investors Association, “Market Design Principles,” at <http://www.cmia.net/mdp.php>

15 Carbon Markets and Investors Association, “Industry Body Calls for Amendment to ETS Draft Directive to Safe-Guard CDM Market,” at http://www.cmia.net/press_release.php

16 “Merrill Lynch’s Karmali discusses role of markets in economic recovery,” *OnPoint* interview, April 7, 2009 at <http://www.eenews.net/tv/2009/04/10/>

17 Testimony of Douglas Elmendorf, Congressional Budget Office, before the House Ways and Means Committee, U.S. House of Representatives, March 26, 2009 at http://www.cbo.gov/ftpdocs/100xx/doc10020/03-26-Cap-Trade_Testimony.pdf

18 International Swaps and Derivatives Association, 2009 completed questionnaire to the Committee on Agriculture, U.S. House of Representatives, at <http://www.isda.org/speeches/pdf/ISDA-Response-House-AG-Committee-Questionnaire.pdf>

19 Letter from International Emissions Trading Association to Representative Henry Waxman et al, April 16, 2009 at <http://www.ieta.org/ieta/www/pages/getfile.php?docID=3274>

tion. Moreover, project finance transactions have some of the longest deal cycles on Wall Street, sometimes taking 2-3 years to pull together. New power plants need to secure permits, perform environmental studies, secure power purchase agreements, organize banking consortia, obtain credit ratings for syndicated loans, etc. They do not need “virtually instantaneous risk assessment,” and exempting OTC carbon deals from mandatory clearing is a loophole that is bound to be abused.

Nevertheless, International Swaps and Derivatives Association claims that non-cleared, bilateral hedge contracts are needed to allow for the “transformation of our national energy infrastructure.”²⁰ But Wall Street is more interested in using environmental rhetoric than ensuring environmental outcomes. For example, when queried about whether or not carbon offset credits result in real, additional greenhouse gas reductions, the chair of the Chicago Climate Exchange, in an unguarded moment, replied, “Quite interesting, but that’s not my business. I’m running a for-profit company.”²¹

Deconstructing the Calls for Liquidity, Price Discovery and Risk Transfer

In addition to using green rhetoric to back up its lobbying agenda, Wall Street also invokes market principles. In particular, **it argues that markets can only function with ample liquidity, in order to allow efficient price discovery and risk transfer. However, this argument may be overplayed, depending on how an emissions trading system is structured.**

Carbon trading proponents argue that it is imperative to ensure **liquidity** for market functioning. Therefore, they advocate for a system that includes as many sectors as possible, allows a large proportion of financial speculators to participate, and does not burden investors with rules such as high margin requirements. However, in a “textbook” emissions market, liquidity is actually designed to decrease as the emissions cap tightens in the long term. In the short term, it is supposed to be more difficult to find a seller when many buyers are short; this dynamic provides an incentive to make extra reduction efforts when it is most important and to bank for compliance (rather than speculative) purposes in the long years.

Ample liquidity makes more sense if the system is designed in other ways that Wall Street wants. For example, in a system that relies heavily on carbon offsets, liquid secondary markets may have the effect of boosting financing in the offset project market. However, there is already a functional project finance market for many offset projects, such as hydroelectric dams (which com-

prise a significant proportion of international offset projects under the Kyoto Protocol). But again, emissions trading schemes do not have to be designed to include offsets at all.

Similarly, carbon trade associations maintain that **price discovery** is an essential market function, so policy-makers should design a system with large secondary markets and vigorous amounts of speculation. For example, in making recommendations to the EU, the IETA warned that governments could potentially interfere with price discovery through auctions. They warned that “Auctions should simply be a means to place allowances in the carbon market. ...[They] are a powerful tool that may be used or abused [by governments] to manipulate or manage the price of carbon; this will undercut the value of the market in setting an accurate price for carbon.”²²

But what is the “right” price for carbon? Unlike other markets, an accurate price is not what best reflects “what the market will bear” — a figure that could be greatly influenced by who is trading — but rather whether the price is high, clear, and consistent enough to generate the intended environmental results. The accurate price for carbon could be the marginal cost for electric utilities to switch from high- to low-carbon fuel; arguably, it does not take masses of speculators to help determine that figure.

20 International Swaps and Derivatives Association, 2009 completed questionnaire to the Committee on Agriculture, U.S. House of Representatives, at <http://www.isda.org/speeches/pdf/ISDA-Response-House-AG-Commtee-Questionnaire.pdf>

21 Ball, Jeffrey, “Pollution Credits Let Dumps Double Dip,” *Wall Street Journal*, 20 Oct 2008 at <http://online.wsj.com/article/SB122445473939348323.html>

22 Presentation of Michela Beltracchi, European Policy Coordinator, International Emissions Trading Association “IETA Recommendations for the Design of EUA Auctions,” Brussels, 11 April 2008 at http://ec.europa.eu/environment/climat/emission/pdf/080411/ieta_auctioning.pdf



Photo credit: Rainforest Action Network

Demonstrators protesting on Wall Street, October 2008.

Finally, carbon trading proponents often point to the need to efficiently **transfer risk** to those investors who are most able to handle it, an objective that can be best met through the creation of secondary and derivatives markets. The objective of risk transfer has been so exalted that it has been used as an argument against general derivatives regulations, such as position limits, exchange-based futures trading, and higher margin requirements. (It has even been argued that position limits are inefficient “because they limit the ability of speculators to absorb risks from [other] speculators.”)²³

In the carbon markets, there are generally two types of risks that participants may want to transfer: carbon price volatility and carbon default risk (the risk that offset projects may not achieve some or all of their carbon reduc-

tions). Both types of risk would arise in a system with a high proportion of offsets and volatile carbon prices.

But carbon markets actually do not have to be structured that way at all. A system could be designed, for example, with a long-term stable and predictable price path, making the need for price volatility transfer moot. Markets can also be designed to trade in allowances only. But even if a modest proportion of offsets were allowed, enabling traders to transfer away most of their carbon default risk may create a perverse incentive. Instead, putting the onus on offset developers to carefully craft projects that are sound may improve the environmental integrity of the system. After all, since offsets would be used by emitters en lieu of making actual carbon reductions themselves, the offset market should be as robust as possible.

²³ Testimony of Craig Pirrong, Professor of finance, Bauer College of Business, The University of Houston, before the House Committee on Agriculture, July 7, 2008 at <http://agriculture.house.gov/testimony/110/h80710/pirrong.pdf>

Policy Approaches To Ensure Market Integrity

Since carbon markets would be created from scratch, **policymakers have the ability to design carbon markets to be simpler, smaller and more stable.** Congress does not have to design a cap-and-trade system that mimics other derivatives markets, which tend to be volatile, prone to excessive speculation, and difficult to regulate.

Design Carbon Markets to Be Smaller, Simpler and More Stable

The most effective way to ensure market integrity is to fundamentally design carbon markets to be smaller, simpler, and more stable. Adopting these design options would provide all the environmental benefits of a classic cap-and-trade system while limiting the potential for market failure and its possible effects on the broader financial system.

Eliminate offsets

The build-up of subprime carbon is bad for the environment and investors alike. **Since offsets are the primary source of “junk” or “subprime” carbon, prohibiting offsets is the clearest way to ensure asset quality.** Offsets could create substantial risks for the system, especially if traded in large quantities. Some types of offset credits, such as those from developing countries, are particularly risky and should be avoided.²⁴

In the event that offsets are included in climate legislation, Congress could mandate that with very few exceptions, carbon offset credits must be verified and credited before being traded. The requirement would enable offset derivatives to be standardized and exchange-traded (an objective of many emerging proposals to regulate derivatives in general). Such a move would also provide more environmental certainty, cut down on the risk of subprime carbon, and protect buyers.

Limit market participation

Another way to improve environmental effectiveness, while reducing financial risks, would be to limit market participation. One very modest option would be to limit allowance sales to regulated entities only. However, if financial

speculators were still allowed to engage in secondary market trading, this would do little to influence the size and complexity of carbon markets.

In contrast, limiting all trading to regulated entities only could go a long way to preventing excessive speculation and the proliferation of exotic carbon financial products. This is not a new idea; when ACES was debated on the House floor, for example, Representative Peter DeFazio introduced an amendment along these lines. Likewise, in 2009 Representative Jim McDermott introduced the “Clean Environment and Stable Energy Market Act of 2009,” which would have limited the purchase of carbon permits to regulated entities only and not allowed secondary trading. Similar proposals have been made in other commodities markets; in the wake of the dramatic spikes in oil prices during the summer of 2008, Representative John Larson and 119 other Members of Congress sponsored H.R. 6264 which would have limited energy trading to only those entities that are able to accept physical delivery of energy commodities.

In addition, limiting financial speculators would cut down on the potential abuse of allowance banking. ACES allows traders to bank carbon as a way of containing costs and providing flexibility to emitters; however, unlimited banking can also allow financial speculators to create artificial scarcity and unnecessarily push up the price of carbon.

Managed price approach

Another — perhaps more elegant — way of preventing excessive speculation is to create a managed price system in which regulated entities would be able to frequently purchase allowances at a set and predictable annual price. According to the Congressional Budget Office (CBO), “Under this approach, legislators would set a cap on cumulative emissions over a period of several decades but would not set annual caps. Regulators, in turn, would be charged with setting allowance prices for each year of the policy—with the objective of choosing prices that would minimize the cost of achieving the multidecade cumulative cap.”²⁵

24 Some policymakers believe that the U.S. should employ international offsets as a way to finance clean energy and other mitigation actions in developing countries. However, the U.S. has an obligation under the United Nations Framework Convention on Climate Change to provide such financial resources in addition to adopting its own greenhouse gas reduction targets. The U.S. should provide developing country mitigation and adaptation financing through a fund, rather than through payments for international offsets.

25 Testimony of Douglas Elmendorf, Congressional Budget Office, before the House Ways and Means Committee, U.S. House of Representatives, March 26, 2009 at http://www.cbo.gov/ftpdocs/100xx/doc10020/03-26-Cap-Trade_Testimony.pdf

A managed price approach is a hybrid strategy that combines the environmental certainty of a cap with the price certainty of a carbon tax. Price certainty creates substantial cost savings²⁶ and provides business with predictable price signals for making early investments in breakthrough technology and infrastructure, benefits usually ascribed to a carbon tax. But it would also include an emissions cap, benefits usually ascribed to a carbon trading system. Also, publishing a stable and predictable price for carbon would eliminate the basic incentive for speculation and prevent carbon bubbles. This in turn would largely prevent the development of subprime assets, the creation of complex and opaque products, and excessive risk-taking.

In March 2009, Representative Lloyd Doggett introduced the “Safe Markets Development Act of 2009,” a bill that would employ a managed price approach to carbon trading. It would set a hard emissions cap in 2020, and empower an independent board to publish an eight-year (2012-2020) stable price path for allowances. Mimicking the open market operations of the Federal Reserve, the Treasury Department would hold quarterly auctions and manage the supply of allowances to hit, on average, the published annual price. As necessary, the board would adjust and re-publish the price path to meet the 2020 cap. Although trading would occur during the periods between auctions, volumes would be diminished because there would be very limited arbitrage opportunities given the frequent auctions and the stable, predictable prices.

Under the Doggett proposal, secondary trading would be allowed, but because of the predictable price, volumes would be very modest; banking would be limited to 5%. A managed price approach would work best in a system that minimizes offsets, free allowance allocations, and banking/borrowing, since these elements undercut the ability of the government to manage carbon prices. The CBO points out that with managed prices, banking and borrowing would be unnecessary because “smoothly increasing allowance prices would automatically capture much of the intertemporal cost savings that banking and borrowing were designed to achieve.”²⁷

Subject Carbon to Specific Regulations

In addition to designing markets to be smaller, simpler, and more stable, Congress should subject carbon markets to

additional oversight and rules that address the ways in which carbon differs from other commodities.

Adopt environmental effectiveness as a regulatory objective

Given the environmental objective of carbon trading, regulators such as the CFTC have a duty to ensure the environmental and financial integrity of this system. The CFTC’s regulatory objectives have evolved over time, and should change to meet the policy goals of this market.

For example, traditionally the CFTC has sought to meet the needs of farmers, and thus prioritized the goal of ensuring that commodities markets clear and that prices reflect fundamentals (through preventing excessive speculation, eliminating fraud and manipulation, etc). In the past decade, as derivatives have become much more diverse, novel, and dominated by financials, regulations skewed towards the desires of financial speculators. Regulators sought to preserve financial innovation, and allowed bigger and more sophisticated financial players more regulatory flexibility. Today, in light of the financial crisis, the interests of the general public — including small savers and taxpayers — are becoming more important, and regulators are debating ways to minimize systemic risks. Along the same lines, regulators should adopt a new goal of governing carbon markets to be environmentally effective.

However, preserving the system’s environmental integrity may mean making decisions that are unpopular for Wall Street, including restricting their level and type of participation. It may mean making choices in favor of environmental integrity rather than financial innovation. Although the ACES and Feinstein-Snowe bills do introduce some new regulations for carbon markets, they could go a lot farther in seeking a better balance between the needs of the environment, emitters and financiers. The following are examples of how carbon might be differently governed.

New regulatory bodies

Congress may choose to create new regulatory bodies, particularly to govern the offset market, where the opportunities for fraud are significant and well-recognized.²⁸ For example, if carbon offsets are allowed, it will be important to ensure integrity among carbon offset projects verifiers. Currently, project developers pay consultants to independently evaluate greenhouse gas reductions.

²⁶ Ibid

²⁷ Ibid

²⁸ See for example, US Government Accountability Office, International Climate Change Programs: Lessons Learned from the European Union’s Emissions Trading Scheme and the Kyoto Protocol’s Clean Development Mechanism, November 18, 2008 at <http://www.gao.gov/new.items/d09151.pdf>

This creates a conflict of interest, particularly if the verifier also offers project development consulting services (replicating the conflicts of interest between management consulting and auditing that brought down accounting firm Arthur Anderson). The ACES bill provides for the creation of an additional oversight body, the Offsets Integrity Advisory Board.

Other parts of the carbon value chain may also require new regulatory oversight. For example, compliance with greenhouse gas laws obviously creates the need for new regulatory capacity to monitor emissions verification. But verification can become more complicated when combined with other features of carbon trading, such as banking and allowance vintages. Making it more complicated still is the fact that financial speculators and bona fide hedgers may sometimes be the same entity. For example, major financial institutions such as Goldman Sachs own power plants which would be subject to greenhouse gas compliance rules.

Additional restrictions and rules

Policymakers should consider imposing additional restrictions to ensure that a cap-and-trade system meets its environmental objective. For example, the Feinstein-Snowe carbon regulation bill **prohibits naked shorting of carbon** to prevent carbon prices from plummeting so low that it ceases to drive environmental change, and punishes those who have made significant investments. In order to avoid the problem of financial speculators pushing prices so high that they break the carbon bank, regulators should **ban long-only index investors from trading in carbon**. Other rules to ensure environmental integrity include levying particularly high **sanctions** for fraud and manipulation, as envisioned in the ACES and Feinstein-Snowe bills.

Market surveillance

In addition, **because carbon markets are politically created, they can have design elements which produce unique gaming opportunities and require particular surveillance**. As mentioned, the ACES bill, with its strategic carbon reserve and trigger price, creates a temptation for traders to rally to push carbon prices to the trigger price, in order to enrich their offset businesses. Also, unlike most commodities, carbon markets involve an emissions compliance aspect, another opportunity for gaming.

Naked shorting – when a trader “shorts” a commodity, he or she is betting that the price will go down. Short selling entails borrowing a commodity from another party (for a fee) with the promise of returning it. The trader then sells the commodity and buys it back, hopefully at a lower price. The trader pockets the difference and returns the commodity to the original owner. Naked shorting is when a trader sells the commodity before borrowing it or gaining permission to borrow it. This can artificially drive down the price of the commodity.

The offset project market is particularly susceptible to corruption, since there will likely be only a few bodies that actually have the power to issue carbon credits. These bodies will come under pressure to approve credits generously and quickly. For example, in 2008 an offsets trade associated slammed the UN body responsible for approving offset projects and issuing carbon credits “unacceptable delays.”²⁹ Already, an independent analysis by Stanford University demonstrates that about one-third to two-thirds of carbon credits issued by that body should never have been given, because those projects did not result in real, additional greenhouse gas reductions.³⁰ As carbon markets grow, especially secondary markets, crediting agencies may not only be bullied by offset providers and regulated entities, but also institutional investors and other financial speculators.

Adopt Robust General Derivatives Regulations

In addition to making smart market design choices, and ensuring that carbon is subject to specific regulations, **policymakers must also adopt robust regulations governing all derivatives**. It is difficult to predict what commodities and derivatives reforms will ultimately look like, but they likely will include: requiring some derivatives to be traded on exchanges rather than over the counter, introducing higher margin requirements, enforcing position limits, and providing regulators with enhanced capacity.

The idea that carbon commodities should be subject to existing regulatory regimes is uncontroversial, but this is where Wall Street believes carbon regulations should end. In fact, Wall Street lobbyists are attacking **many proposals to regulate derivatives**, when instead these proposals should be strengthened.

29 “Carbon Industry Group Slams UN’s CDM Market Over Delays,” *Platt’s Emissions Daily*, September 18, 2008.

30 Kapur, Salone, “Credits May Not Reduce Emissions,” *The Stanford Daily*, 30 May 2008 and Wara, Michael and Victor, David, “A Realistic Policy on International Carbon Offsets,” Stanford University Program on Energy and Sustainable Development, Working Paper 74, April 2008.

ACES, the Feinstein-Snowe bill, House Agriculture and Finance Committee principles, and the House Agriculture bill all include various measures to adopt **position limits**. For example, the House Agriculture bill would establish position limit advisory committees. The purpose of these committees is to recommend a limit that would prevent excessive speculation while allowing enough to provide liquidity for “bona fide hedging transactions” (i.e. substitutes for positions in “physical marketing channel”). For carbon, bona fide hedging transactions would represent trades made by regulated entities to comply with carbon caps. However, the Futures Industry Association will likely fight this definition, which it believes is overly restrictive.³¹

Another common regulatory proposal, found in Treasury Department legislative language and House Agriculture and Finance principles, is to move as much derivatives trading as possible onto **exchanges and subject them to mandatory clearing**. The “Derivatives Trading Integrity Act of 2009,” introduced by Senator Harkin (recently the chair of the Senate Agriculture Committee) goes farther, and proposes an outright ban OTC trading. But carbon trading associations are fighting for exceptions to keep the OTC market open and oppose mandatory clearing.

Although carbon should be exchange traded and cleared, as several climate-related bills suggest, this does not provide a full measure of comfort. The exchanges themselves are self-regulated, and they historically have not done a good enough job of enforcing their own standards. For example, in the oil markets, the NYMEX failed to apply appropriate speculation limits on

financial oil speculators by classifying them with commercial interests such as oil refiners.³² Historically, the CFTC has taken a hands-off role, and to a great extent its hands are actually tied. Unlike the Securities and Exchange Commission, if the CFTC notices suspicious trading activity it must first gather “substantial proof” that a market participant is engaging in price manipulation before commencing any action. However, the **CFTC may be given more pre-emptive authority** as regulatory reforms progress.

In addition, policymakers have been concerned about how to **properly regulate derivatives in a globalized context**. Foreign boards of trade have been able to establish electronic trading platforms in the United States for U.S. investors trading U.S. products — while not being subject to U.S. regulations. This “London Loophole” has been largely blamed for the 2008 speculation-driven spike in oil prices. Given the expected size of a U.S. cap and trade system, carbon trading (either of carbon commodities or financial instruments based on carbon), may find ways of fleeing offshore. Several regulatory proposals (including ACES, Feinstein-Snowe, and the House Agriculture and Financial Services principles) have been introduced to close the London loophole.

In addition, there is substantial interest in tying any U.S. trading program to existing international emissions trading schemes, creating a global carbon market. But as evidenced by the lack of action in international fora such as the G20, **the possibility of creating an effective, global, and coordinated approach towards regulating international derivatives markets is dim.**

Conclusion

At a time when Americans — and indeed the entire world — are still reeling from huge market and regulatory failures in the financial sector, it is critical that policymakers understand the scope, complexities, and characteristics of carbon trading. Given the lack of proven mechanisms to govern Wall Street, it is imprudent to hastily create an extraordinarily complex and massive new derivatives market and foist it upon an untested regulatory regime. Fortunately, because carbon markets are being created via legislative fiat, policymakers have the unique ability to learn from past mistakes. Congress can fundamentally

structure carbon markets in ways that minimize their size and complexity, avoiding problems in the first place, rather than simply relying on derivatives regulations to contain market excesses.

If Congress moves forward with a carbon trading system, they can design carbon markets in ways that inherently reduce the opportunities for gaming, fraud, excessive speculation, etc. **In general, the more that “bells and whistles” are included in carbon market design — strategic reserves, trigger prices, offsets,**

31 Prepared Testimony of John M. Damgard, President, Futures Industry Association, Hearing on the Derivatives Markets Transparency and Accountability Act of 2009 Before the U.S. House Committee on Agriculture, February 3, 2009 at <http://agriculture.house.gov/hearings/statements.html>

32 Testimony of Professor Michael Greenberger before the Committee on Commerce, Science and Transportation, United States Senate, June 3, 2008 at http://commerce.senate.gov/public/_files/IMGJune3Testimony0.pdf

banking, borrowing, free allocations, etc. — the more chances there are to game the system. Therefore, a prudent rule of thumb is to design carbon markets to be as simple as possible.

If created, carbon markets should also be of an appropriate size: **large enough to satisfy the environmental objective of the system, but not so large that they become simply another way that financial speculators can make money off of money.** Excessively large markets lay the groundwork for speculative bubbles and reckless risk taking, they are harder to regulate, and can create systemic risks without providing proportional policy benefits. A **managed price approach**, in combination with principles of simple market design (i.e. prohibiting offsets, free allowance allocations, and banking/ borrowing) would not only reduce opportunities for gaming, but keep the size of the carbon markets manageable. In addition, adopting this hybrid approach, with its predictable and stable carbon prices, would incentivize more rapid and significant investments in low carbon technologies and infrastructure, thus addressing a structural weakness in emissions trading schemes.

Naturally, even a system that is designed with an eye towards financial and environmental integrity **should still be subject to the most robust financial regulations possible** to deter manipulation, fraud, excessive speculation, etc. High levels of accountability are critical for all parts of the financial sector, and would also have attendant benefits for other markets, including critically important commodities such as food.

However, it should be noted that today's hyper-innovative financial markets will introduce products, risks, and complexities that regulators cannot yet conceive, let alone be ready to address. Carbon markets already are unique in ways that would be unimaginable in the early 1990s, when the U.S. created its first emissions trading system for acid rain. In addition, **policymakers should take a realistic view of how even the most robust regulatory regimes developed today will erode in effectiveness over time as they are whittled away.** Most cap-and-trade bills set up carbon trading systems that will continue for the next 40 years, and in an equivalent period of time, the United States has witnessed numerous bouts of regulatory failure — from the savings and loans crisis, to the Enron accounting and market manipulation scandals, to the current financial crisis.

It is not enough for policymakers to simply write good regulations and hope that they will be strong enough to contain a massive new derivatives market that is inherently volatile and byzantine. Although some good work has been started by Members of Congress (such as Representatives DeFazio and Stupak and Senators Feinstein and Snowe), by and large legislators, motivated by the notion that our planet is at stake, have come to accept the fact that we must accept a flawed system wherein trading will sometimes “go bad.” But it is precisely because our planet is at stake that we have to get this right.



1717 Massachusetts Ave., NW, Suite 600
Washington, DC 20036-2008
Ph. 202.783.7400 • Fax 202.783.0444
www.foe.org