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Financial Market Reform and the Implications for Carbon Trading

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Executive Summary

Concerns about regulating carbon markets became an increasingly integral part of the climate policy debate in the aftermath of recent episodes of market abuse and failure. In the absence of an existing comprehensive system of market oversight for carbon trading, policymakers drafting market-based climate legislation started including a range of market oversight provisions to help ensure that a new market, potentially valued in the hundreds of billions of dollars a year, would function properly.

President Obama signed the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") on July 21, 2010, while the effort to enact a federal cap-and-trade system for greenhouse gas (GHG) emissions stalled in the U.S. Senate. The new law will significantly expand regulation of financial market activity, including transactions associated with existing emissions trading markets. The law will also presumably apply to financial market activity associated with any future federal carbon market, as well as carbon markets under development by the State of California and the Western Climate Initiative—an economy-wide cap-and-trade system comprised of seven U.S. states and four Canadian provinces, scheduled to begin operation in 2012.

This paper provides an overview of the concerns raised and regulatory proposals put forward in the federal climate debate, and by regulators designing the Western Climate Initiative, regarding the financial market activity associated with carbon trading, and examines whether and how the Dodd-Frank Act addresses these concerns. The oversight measures in various cap-and-trade proposals vary, with some climate bills creating general standards for market regulation and others including specific requirements regarding what instruments may trade, where trading may occur, and who may participate in the marketplace. In general, market oversight proposals became more restrictive as the climate debate progressed in the 110th and 111th Congresses.

The major carbon market oversight concerns expressed since early summer 2008 tend to fall in the following general categories:

- ***Transparency.*** Examples of provisions in recent climate bills to increase market transparency include mandatory exchange trading and clearing, additional reporting and recordkeeping requirements, registration requirements for certain market participants, a national market system, and an automated quotation system for allowance markets.
- ***Excessive speculation, price manipulation, and fraud.*** Efforts to address these concerns in recent climate bills include specific prohibitions on manipulation and fraud, position limits, limits on the types of instruments that may trade and where trading may take place, limits on the short selling of regulated allowances, reporting requirements, and restrictions on market participation.
- ***Price volatility.*** Proposed measures to limit price volatility tend to mirror those intended to increase market transparency and prevent excessive speculation.
- ***Government regulator and jurisdiction.*** While the Markey bill initially proposed creating an Office of Carbon Market Oversight at the Federal Energy Regulatory Commission (FERC), subsequent bills demonstrate an emerging consensus that the Commodity Futures Trading Commission (CFTC) is best equipped to regulate emissions markets. The majority of climate bills expand regulators' jurisdiction over allowance and derivative markets. Some bills include specific definitions of the kinds of financial instruments subject to regulatory oversight, while others rely on subsequent rulemaking by regulator(s) to define regulated instruments.
- ***Offset transactions.*** Oversight provisions in some bills could be interpreted to cover transactions involving the development of offset projects (i.e., contract sales before a government authority certifies the offset credit as a compliance instrument). Carbon market bills address the concern by exempting a narrowly defined category of contracts from exchange and clearing requirements[1] or allowing the regulator to determine which financial instruments are subject to the exchange trading and clearing requirements.

In some instances, the Dodd-Frank Act includes provisions that are identical to or closely mirror those found in the climate bills. Policymakers designing cap-and-trade systems in the future would presumably start with the framework in the Dodd-Frank Act rather than create overlapping or potentially conflicting oversight requirements for a carbon market. Depending on the implementation of the Dodd-Frank Act and policymakers' assessments of the unique aspects

1 S. 1399, § 202(12).

of a carbon market, future legislative efforts may include additional market oversight mechanisms to address specific concerns unique to a carbon market.

Major issues that remain unresolved by the Dodd-Frank Act include:

- ***Regulation of the allowance (spot) market.*** A major distinction between the Dodd-Frank Act and the climate bills introduced in the 110th and 111th Congresses is the regulation of spot market activity. Most climate bills include specific provisions governing the spot market, while the Dodd-Frank Act does not directly regulate these markets.
- ***Regulation of end-user transactions.*** The Dodd-Frank Act exempts end users (i.e., bona fide commercial hedgers) from the Act's new exchange trading and clearing requirements for standardized derivatives. In a mandatory cap-and-trade system, this exemption would presumably apply to any entity with a compliance obligation. Because a high percentage of derivative transactions would likely involve compliance entities, a majority of market activity may qualify for the exemption. Policymakers would therefore face the choice of (1) removing or limiting the exemptions for compliance entities covered by a cap-and-trade bill, (2) relying on the other reporting requirements in the Dodd-Frank Act to adequately monitor the market activity that is exempt from exchange trading and clearing requirements, or (3) seeking alternate mechanisms to increase transparency and limit concerns about systemic risk in the carbon market.
- ***Regulation of offsets credit transactions.*** Under current business practices, offset project developers may sell their rights to the credits produced by a project before the project matures. It is possible that the CFTC would either determine that these contracts are not subject to regulation or that they are exempt from exchange trading and clearing requirements because they are unstandardized contracts. Depending on the scope and specificity of the CFTC's upcoming regulations, future legislation or rulemaking may need to clarify the types of offset-related financial transactions that will be subject to regulation.
- ***Limitations on carbon market participation.*** The Dodd-Frank Act would not restrict participation in the carbon market beyond the general limitations on trading by financial institutions, provided market participants meet the registration requirements. This is consistent with most major climate bills and the approach recommended by the WCI Partner jurisdictions, but is in conflict with the two most recent proposals considered in the Senate—the Cantwell-Collins bill and the Kerry-Lieberman draft. Policymakers working on future market-based mechanisms to limit GHG emissions may revisit whether concerns about excessive speculation and manipulation in the carbon market merit restrictions on market participation.

1. Introduction

In the wake of significant episodes of financial market abuse and failure, policymakers have become increasingly focused on the issue of market oversight, and whether the absence of more stringent rules, regulatory monitoring, and enforcement might have contributed to the problems. These concerns extend to carbon markets—both existing and proposed market-based trading programs to reduce greenhouse gas (GHG) emissions. The federal climate policy debate that took place in the 111th Congress (2009-2010) occurred in parallel with efforts to reform financial market regulation. In the absence of an existing comprehensive system of market oversight for carbon trading, policymakers drafting climate legislation started including a range of market oversight provisions to help ensure that a new market, potentially valued in the hundreds of billions of dollars a year, would function properly.

President Obama signed the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") on July 21, 2010, while the effort to enact a federal cap-and-trade system for GHG emissions stalled in the U.S. Senate. The new law will significantly expand regulation of financial market activity associated with existing emissions trading markets, including the Regional Greenhouse Gas Initiative (RGGI)—a cap-and-trade system covering electricity generation in 10 northeastern and mid-Atlantic states operating since late 2008. The law will also presumably apply to financial market activity associated with any future federal carbon market, as well as carbon markets under development by the State of California and the Western Climate Initiative—an economy-wide cap-and-trade system comprised of seven U.S. states and four Canadian provinces, scheduled to begin operation in 2012.[2]

2 Not all WCI partner jurisdictions will participate in the regional cap-and-trade market beginning in 2012. According to a Point Carbon analysis, California and New Mexico will join the four Canadian provinces in a 2012 market, with Oregon, Washington and Montana joining the market beginning in 2015. Point Carbon webinar "Towards a Western market in North America." Nov 9, 2010, available at http://www.pointcarbon.com/research/northamerica/wci/.

Along with provisions that apply to all commodity markets, including carbon trading, the Dodd-Frank Act requires that the Commodity Futures Trading Commission (CFTC) conduct an interagency study regarding "the oversight of existing and prospective carbon markets to ensure an efficient, secure, and transparent carbon market, including oversight of spot markets and derivative markets."[3] While implementation of the Dodd-Frank Act potentially takes many of the concerns regarding oversight of carbon trading off the table, the inclusion of this study suggests that the law may not completely resolve the issue of government regulation of carbon market activity.

This paper provides an overview of the concerns raised and regulatory proposals put forward in the federal climate debate, and by regulators designing the Western Climate Initiative,[4] regarding the financial market activity associated with carbon trading, and examines whether and how the Dodd-Frank Act addresses these concerns. It begins with a description of the main elements that make up a carbon market, including instruments traded, where and how trading may occur, and the stakeholders who may participate in a large-scale GHG market. The paper next provides an overview of the market oversight proposals in recent federal climate bills and the Western Climate Initiative, and summarizes the major provisions affecting carbon trading in the Dodd-Frank Act. The final section compares specific provisions in the climate bills and the Dodd-Frank Act, and highlights concerns raised about carbon market oversight that are left unaddressed by the financial reform legislation.

2. Carbon Market Basics

Overview of GHG cap-and-trade systems

Many of the major efforts to limit GHG emissions center around mandatory cap-and-trade systems. Proposed legislation, such as the American Clean Energy and Security Act, which passed the U.S. House of Representatives in 2009 (the "Waxman-Markey bill"), set a cap on the total volume of GHG emissions that covered entities may emit over the course of a year.[5] The policy then creates "allowances," or emission credits, for each unit of emissions.[6] The emissions cap declines over time, thereby reducing the supply of allowances issued each year. The government may distribute the allowances through auctions or by allocating them directly to specified entities. In addition to government-issued allowances, a carbon market may allow covered entities to use offset credits—credits representing emission reductions that occur outside the covered sector(s)—to meet a portion of their compliance obligations.[7] At the end of each compliance period, regulated entities submit allowances and/or offset credits equal to their total GHG emissions over the compliance period to a government regulator.[8]

Complementing the use of allowances and offsets (depending on program rules) to cover an entity's emissions, a firm can opt to invest in technology or processes that lower its emissions, thereby reducing its compliance obligation. These actions might include switching to lower-carbon fuel sources, or making investments in energy efficiency. The market system allows firms to purchase and trade compliance instruments, and choose the level of emissions abatement most cost effective for their particular enterprise.

Barring restrictions on market participation,[9] a variety of entities may choose to trade in a carbon market, including

3 Pub. L. No. 111-203, § 750 (2010) (hereinafter "Dodd-Frank Act").
4 Significant concerns about market oversight were not raised during the development of RGGI, and the RGGI system does not include specific oversight requirements.
5 In the Waxman-Markey bill, covered entities include the majority of large stationary sources of GHG emissions.
6 Allowances under the Waxman-Markey bill were based on the equivalent of one metric ton of carbon dioxide. H.R. 2454 § 722.
7 An example of a potential offset-generating project would be the emissions reductions resulting from installation of an anaerobic digester which captures methane at a hog farm, assuming the project would not happen on its own (it is "additional") and that resulting emissions reductions can be monitored and verified. Offsets can help reduce overall compliance costs in the cases where emissions reductions outside the cap are less costly than those made by covered entities.
8 Allowances are marked with serial number identifiers and a date referring to the calendar year from which the total emissions cap is partitioned. Cap-and-trade programs typically have defined compliance periods covering from one to several years, after which all emissions by covered entities must be accounted for by submission of allowances from dates within the compliance period. Most programs, including RGGI, allow for "banking" of allowances—that is, retaining unused allowances from previous compliance periods for use in a subsequent compliance period. Other programs, such as the one set out in the Waxman-Markey bill, also allow for the limited "borrowing" of allowances from later years to cover emissions occurring in the current compliance period. Banking and borrowing provisions provide covered firms with additional measures of flexibility and are thought to be helpful in reducing price volatility in carbon markets.
9 Neither RGGI nor the European Union Emissions Trading Scheme—a cap-and-trade system covering electricity generation and

entities with compliance obligations, investors, exchange brokers, dealers, and other intermediaries.[10] Some of these entities may be sophisticated traders already engaged broadly in financial markets, such as institutional investors, hedge funds, investment banks, and large energy companies, while others may include companies focused specifically on carbon offset markets. For example, RGGI compliance entities and their affiliates purchased 65% of the allowances auctioned on December 2, 2009, while compliance entities or their affiliates purchased 92% of allowances in the September 10, 2010 auction.[11]

The value of carbon markets varies significantly depending on the size and stringency of the cap and the number of covered entities. For example, the RGGI states have raised approximately $778 million in revenue since the first auction in September 2008.[12] The value of the federal, economy-wide market proposed in the Waxman-Markey bill, in contrast, could have reached $65 billion in the first year of operation alone, with a related derivatives market potentially reaching well over $100 billion.[13]

Because government action creates the market supply (via the mandatory emissions cap, rules regarding offsets, and potentially other elements regarding banking, borrowing, and price containment) and the rules for the marketplace, ongoing political support is necessary for the long-term viability of the market. This aspect—unique to mandatory emissions trading systems such as GHG cap-and-trade systems—creates an element of market risk. Businesses will evaluate long-term investments in plants and technologies that reduce GHG emissions based on their compliance obligations and the expected price movements. As such, episodes of market abuse—be they real or perceived—that serve to undermine public support for carbon markets, could threaten both direct and related carbon market investments and the ability of the nation to reduce its GHG emissions.

Financial market transactions associated with carbon markets

Financial market transactions[14] associated with a carbon market fall into two general categories: (1) spot market transactions of allowances or offsets and (2) derivative transactions—transfers of financial instruments whose value is derived from underlying allowances or offsets. Derivative contracts may include standardized futures contracts and options, or other contracts with more customized terms that are negotiated between two parties directly. The regulation of commodity trading in the United States focuses on derivative markets, while the majority of federal cap-and-trade bills call for regulation of both spot and derivative transactions.

The role of derivatives markets differs from that of spot markets in that, while spot markets facilitate the transfer of securities and commodities between buyers and sellers, a primary function of derivatives markets is to allow firms to manage risks inherent in fluctuating prices—a practice known as "hedging." For example, an electric power generator facing uncertain demand may wish to lock in a price for allowances to cover future emissions by purchasing a call option. This option would allow the company to purchase a fixed number of allowances at a set price at any time prior to expiration of the option. Likewise, a natural gas producer wishing to guarantee a price for some part of its production may sell a futures contract. Derivatives markets, as with spot markets, can also facilitate "investing" or "speculating" by firms willing to take on the risk that hedgers wish to shed. This function is particularly important in a mandatory compliance market. In petroleum markets, for example, producers may wish to hedge the risk of falling prices while purchasers may want to hedge the risk of rising prices. In a carbon market, by contrast, there are few entities with a natural motivation to sell allowances unless the program allocates allowances to entities that do not face compliance obligations (e.g., allowances allocated to a government agency to provide funding for a specific program). Without sellers seeking to hedge a price risk, speculators play an important function by offering products to entities seeking to hedge their compliance obligations. The inclusion of additional traders increases market liquidity, making it more likely

energy-intensive industrial sectors—include general restrictions on market participation, although market participants may be subject to registration requirements and may need to meet certain criteria in order to participate in auctions. See, e.g., RGGI, Qualification Application--Version 3.0, available at http://rggi.org/docs/Qualification_Application_Oct_5_2010.doc.

10 Western Climate Initiative, Market Oversight White Paper, at 10 (Nov. 18, 2009).

11 Potomac Economics, Market Monitor Report for Auction 6, at 3, 7 (Dec. 4, 2009); Potomac Economics, Market Monitor Report for Auction 9, at 3 (Sept. 10, 2010). Non-compliance entities approved for auction participation included Barclays Bank, ConocoPhillips, CE2 Environmental Markets, DTE Carbon, Element Markets, and NextEra Energy Power Marketing. *Id.* at 10.

12 Regional Greenhouse Gas Initiative Inc., Auction 10 Release Report, December 3, 2010.

13 Jonas Monast, Climate Change and Financial Markets: Regulating the Cap Side of Cap and Trade, 40 ELR 10051, 10053. Jan. 2010.

14 For the purpose of this paper, "financial market transactions" do not include auction purchases, as a separate regulatory structure would likely apply to the initial distribution of allowances.

that products are available on the marketplace when buyers and seller wish to make a transaction.

In addition to the types of products traded, markets are further differentiated by where trading takes place, and the kinds of rules and regulatory oversight governing a particular market. In general, trading may occur on exchanges or via private "over-the-counter" (OTC) transactions. Organized exchanges, such as the Chicago Mercantile Exchange and the New York Mercantile Exchange, operate centralized markets where buyers and sellers submit orders that are then matched. Exchanges are associated with a higher degree of oversight and transparency. Contracts traded on exchanges are "standardized," meaning they are fungible with one another, and exchanges generally "clear" these trades though the use of a clearinghouse.

Clearinghouses guarantee contract performance by assuming the obligation to complete both sides of a transaction, thereby eliminating the risk to both buyer and seller that the other might default—what is known as "counterparty risk." Clearinghouses facilitate this transference of risk in part by requiring liquid collateral from traders—known as "margin"—that serves as performance bonds.

In contrast to exchange trading, OTC transactions occur directly between private parties, typically with little public reporting of contract terms. OTC contracts can be less standardized than exchange-traded contracts, and parties often execute OTC contracts without the use of clearinghouses. As such, OTC collateralization arrangements are more flexible than they are for exchange-traded contracts and, for some firms, are potentially less costly. Prior to the Dodd-Frank Act, OTC trading has been subject to less regulatory oversight than exchange trading, with certain OTC-traded commodities, including energy commodities, generally not subject to CFTC regulation.[15]

3. Proposals to Regulate Financial Transactions Associated with Carbon Markets

The major existing emissions trading markets, including RGGI, the European Union Emission Trading System, and the U.S. EPA's Acid Rain Program, were designed without specific provisions governing financial market activity associated with the cap-and-trade systems. Instead, these markets are subject to market regulations that apply to financial markets generally. Starting in the summer of 2008, however, every major federal climate bill has included provisions to regulate financial transactions relating to the new market. The approaches vary, with some bills creating general standards for market regulation and others including specific requirements regarding what instruments may trade, where trading may occur, and who may participate in the marketplace. In general, proposals for regulating carbon markets became more restrictive as the climate debate progressed in the 110th and 111th Congresses.

Market oversight emerged as an issue in the climate debate in the aftermath of the price spikes in energy markets during the spring and summer of 2008, as government officials struggled to determine the cause or causes of the price spikes and many suspected that excessive speculation and manipulation may have played a role.[16] The issue rose in importance after the financial crisis.

The 2008 Climate Security Act ("the Lieberman-Warner bill") called for a two-year study on the operation of GHG markets, as well as a report within six months after the opening of the market regarding "volatility within the market" and the average price of emission allowances, marking the first time that the issue of market oversight appeared in federal

15 7 U.S.C. 2(h). Prior to Dodd-Frank, OTC contracts for exempt commodities were, however, still subject to anti-fraud and anti-manipulation provisions of the Commodity Exchange Act and additional provisions relating to significant price discovery contracts.
16 For example, the U.S. Senate Committee on Homeland Security and Governmental Affairs held a series of hearings in 2008 to "explore the role of commodity market speculation in the rising cost of food and energy." Press Release, Lieberman, Collins Float Potential Fixes to Curb Excessive Speculations in the Commodity Markets, June 18, 2008. According to Senator Joe Lieberman at the time: "The cost of food and energy is creating severe economic distress for millions of working families in America and around the globe. … We are not, as some continue to argue, witnessing the ebb and flow of natural market forces at work. We are instead seeing excessive market speculation at work and that is why our government must step in with new laws to protect our economy and our consumers." *Id. See also*, Mark Jickling & Larry Parker, Regulating a Carbon Market: Issues raised by the European Carbon and U.S. Sulfur Dioxide Allowance Markets, Congressional Research Service, (Apr. 30, 2008), at 2 ("Since there is widespread suspicion that excessive speculation by hedge funds and others has affected energy prices, the possibility that the price of allowances could also be subject to distortion or manipulation will be a policy concern.").

climate legislation.[17] In June 2008, as petroleum prices spiked above $4.00 per gallon,[18] Representative Ed Markey introduced the Investing in Climate Action and Protection Act ("the Markey bill") in the House of Representatives.[19] This bill, which was the first to specify provisions governing financial market activity associated with a cap-and-trade program, served as a model for many of the major federal climate bills that have followed. For example, the Markey bill included:

- the creation of a new Office of Carbon Market Oversight at the Federal Energy Regulatory Commission (FERC) to enforce the trading regulations;
- prohibitions on manipulation, fraud, and excessive speculation; and
- requirements that spot market transactions (i.e., transactions involving allowances as opposed to derivative instruments) occur on a registered "carbon trading facility" and clear through a "carbon clearing organization."[20]

Subsequent bills following the basic market oversight framework of the Markey bill include a draft comprehensive climate and energy bill released in 2008 by Representatives John Dingell and Rick Boucher,[21] the Waxman-Markey bill, and a stand-alone carbon market oversight bill introduced by Senators Diane Feinstein and Olympia Snowe.[22] Two more recent legislative efforts to regulate carbon market activity—the Carbon Limits and Energy for America's Renewal (CLEAR) Act, introduced by Senators Maria Cantwell and Barbara Collins,[23] and the draft American Power Act released by Senators John Kerry and Joseph Lieberman[24]—are more prescriptive, limiting who may participate in allowance and/or derivative markets.

In addition to these federal efforts to regulate carbon markets, the Western Climate Initiative (WCI)—a cap-and-trade system under development by seven U.S. states and four Canadian provinces—has established a Markets Committee to address market oversight issues. Many of the concerns and approaches under consideration are similar to the federal policy issues described above.[25] The WCI program designers face an additional challenge, as the market will involve both interstate and international trading. The challenge is further complicated by the fact that U.S. law limits the ability of state governments to regulate market activity, while market regulation in Canada occurs at the provincial rather than federal level.[26]

The major concerns about carbon market oversight expressed since early summer 2008 tend to fall in the following general categories:

- ***Transparency.*** The term "transparency" in the carbon market context can refer to at least three distinct goals: (1) information available to government regulators to facilitate effective monitoring and enforcement; (2) information available to market participants regarding market activity (e.g., price, volume, and types of instruments trading); and (3) information available to the general public. Examples of provisions in recent climate bills to increase market transparency include mandatory exchange trading and clearing, additional reporting and recordkeeping requirements, registration requirements for certain market participants, a national market system, and an automated quotation system for allowance markets.
- ***Excessive speculation, price manipulation, and fraud.*** Concerns about excessive speculation, manipulation, and fraud are recurring themes in the energy and financial market debates.[27] Some lawmakers, for example, believe that

17 S. 3031, § 2603(c), 110th Cong.
18 U.S. Energy Information Agency, Retail Gasoline Historical Prices: Regular Grade, http://www.eia.doe.gov/petroleum/data_publications/wrgp/mogas_history.html.
19 H.R. 6186, 110th Cong.
20 The exchange trading and clearing requirements did not cover transactions involving allowance-based derivatives, provided the transactions took place between persons who are eligible contract participants as defined in the Commodity Exchange Act.
21 Dingell-Boucher Discussion Draft, 110th Cong. (on file with author).
22 S. 1399, 111th Cong. The Clean Energy Jobs and American Power Act, introduced by Senators John Kerry and Barbara Boxer and approved by the Senate Environment and Public Works Committee in December 2009, took a different approach to market oversight. Rather than include specific market oversight provisions, the Kerry-Boxer bill included a "sense of the Senate" provision regarding market oversight, listing general standards to create "a single, integrated carbon market oversight program." S. 1733, 111th Cong.
23 S. 2877, 111th Cong.
24 Kerry-Lieberman Discussion Draft, 111th Cong. (on file with author).
25 *See* Western Climate Initiative, Market Oversight Draft Recommendations, Apr. 1, 2010.
26 For detailed information regarding the WCI's approach to market oversight, see http://westernclimateinitiative.org/wci-committees/market-operation-a-oversight-committee.
27 See, e.g., U.S. Senate Committee on Homeland Security and Governmental Affairs, Permanent Subcommittee on Investigations,

the declining allowance cap, and the potential for scarcity in the spot markets, creates an opportunity for fraud and manipulation in a carbon market.[28] Efforts to address these concerns in recent climate bills include specific prohibitions on manipulation and fraud, position limits, limits on the types of instruments that may trade and where trading may take place, limits on the short selling of regulated allowances, reporting requirements, and restrictions on market participation.

- ***Price volatility.*** Concerns about short-term price volatility are linked to the 2008 energy price spikes, when the national average price of regular grade gasoline rose from $2.95 per gallon in mid-February to over $4.00 per gallon by mid-June.[29] There is a concern that similar price spikes in a carbon market could ripple through not only the carbon market but also related energy markets, leading to noticeable price fluctuations for consumers. Proposed solutions to price volatility tend to mirror those intended to increase market transparency and prevent excessive speculation.
- ***Government regulator and jurisdiction.*** Carbon market bills have proposed assigning carbon market oversight to various government agencies, either exclusively or shared with other regulators, including the Federal Energy Regulatory Commission (FERC), the CFTC, and the Environmental Protection Agency (EPA). The Commodity Futures Modernization Act of 2000 limited the CFTC's jurisdiction over OTC instruments that did not qualify as agricultural commodities (e.g., energy commodities). The majority of climate bills expand the government regulators' jurisdiction over allowance and derivative markets. Some bills include specific definitions of covered financial instruments and others rely on the regulator(s) to define regulated instruments through the rulemaking process.
- ***Offsets.*** Regulating financial market activity associated with offset credits attracted particular attention in the carbon market oversight debate. At issue is whether transactions involving the development of offset projects (i.e., contract sales before a government authority certifies the offset credit as a compliance instrument) should be subject to the same kinds of oversight provisions—namely exchange trading and clearing requirements—that apply to compliance instruments and allowance-based derivatives. Stakeholders involved in the development and sale of offset credits have argued that project development contracts are necessarily tailored to the specific project and therefore impossible to standardize.[30] Carbon market bills address this issue by exempting a narrowly defined category of contracts from exchange and clearing requirements[31] or allowing the regulator to determine which financial instruments are subject to the exchange trading and clearing requirements.[32]

As the list above demonstrates, certain provisions address more than one of the concerns expressed by lawmakers. For example, reporting requirements may increase transparency, help prevent price volatility by helping market participants make informed investment decisions, and help prevent market manipulation by allowing regulators to identify irregular market activity.

4. The Dodd-Frank Act

In response to the financial crisis, the U.S. Congress enacted the "Dodd-Frank Wall Street Reform and Consumer Protection Act" ("Dodd-Frank Act," or "the Act") in July 2010. The law has been called the most sweeping overhaul of the financial services industry since the Great Depression,[33] touching banks and non-bank financial firms, hedge funds, credit cards, mortgages and payday lenders, and creating two new powerful regulatory bodies, including the "Financial Stability Oversight Council," which has a wide mandate to reduce systemic risk in the financial markets. The bill sets in motion broad structural changes to the economy while endowing regulators with discretion to write and interpret new

The Role of Market Speculation in Rising Oil and Gas Prices: A Need to Put the Cop back on the Beat, 109th Cong., S,. PRT. 109-65, June 27, 2006; End Oil Speculation Act of 2008, S. 3183, 110th Cong. "It won't be very long before we have derivatives, we'll have swaps, we'll have synthetic swaps, you name it, we'll have all of them and it'll be a field day for speculation." Jim Efstathiou Jr. & Daniel Whitten, *Goldman, JPMorgan Face Carbon Market Curbs in Senate Proposals*, Bloomberg, Aug. 13, 2009 (quoting Senator Byron Dorgan).

28 *See* S. 1733, 111th Cong., § 201(iii).

29 U.S. Energy Information Agency, Retail Gasoline Historical Prices: Regular Grade, http://www.eia.doe.gov/petroleum/data_publications/wrgp/mogas_history.html.

30 *See, e.g.,* Testimony of Julie Winkler before the U.S. Senate Committee on Agriculture, Nutrition, and Forestry, Sept. 9, 2009 ("Primary offset creation contracts provide the supply of offsets necessary to help contain the costs of a climate program for American consumers. Each of these carbon offset creation contracts is unique, and their customized nature lends itself to the OTC market, not exchanges.").

31 S. 1399, § 202(12).

32 Kerry-Lieberman discussion draft, § 2401(a)(26).

33 *"Law Remakes U.S. Financial Landscape."* Wall Street Journal, July 16, 2010.

rules, such that the full effect of Act will likely not be seen or felt for years to come.

The following provisions of the Act are most relevant to carbon markets.

Regulation of banks, derivative dealers, and major market participants

In a provision known as the "Volcker Rule"—named after former Federal Reserve Chairman Paul Volcker, a longtime advocate for tighter trading restrictions on banks—banks and their affiliates will now be prohibited from using their own funds to trade in derivatives.[34] Banks can still make small investments in hedge and private equity funds limited to 3% or less of a bank's Tier 1 capital.[35]

Dealers in derivatives, as well as firms that maintain large derivative positions for reasons other than to hedge commercial risk—defined in the Act as "major swap[36] participants"—must register with the CFTC, comply with new reporting and business conduct standards, and satisfy capital and margin requirements to be established by subsequent CFTC rulemaking.[37] These new capital and margin requirements apply only to uncleared derivatives transacted by dealers and major market participants, and are distinct from those required by clearinghouses (which are themselves regulated by the CFTC).

Capital and margin requirements imposed on dealers and major market participants for uncleared derivative transactions will likely be higher than those imposed by clearinghouses for cleared derivatives, as indicated by language in the Act. "To offset the greater risk to the swap dealer or major swap participant and the financial system arising from the use of swaps that are not cleared, the requirements imposed…shall (i) help ensure the safety and soundness of the swap dealer or major swap participant; and (ii) be appropriate for the risk associated with the non-cleared swaps held as a swap dealer or major swap participant."[38]

Changes to derivatives market oversight

In the aftermath of the 2008 financial crisis, many economists and policymakers focused on the role that OTC derivatives may have played. Specifically, policymakers raised concerns that these markets, which have grown substantially in size in recent years relative to other markets, operate largely outside of regulatory oversight, allowing for excessive risk-taking that led to bailouts of large interconnected firms including AIG, Bank of America, and Citigroup.[39] The provisions in the Dodd-Frank Act governing derivatives are in direct response to these concerns, and are among the Act's most far-reaching changes to U.S. financial markets.

The Dodd-Frank Act includes the following changes to derivatives oversight:

- Increased oversight of OTC markets, removing exemptions that allowed many non-agricultural OTC transactions, including those involving energy commodities, to trade beyond the reach of the CFTC.
- Mandatory exchange trading and centralized clearing for sufficiently standardized contracts, with exemptions for

34 Dodd-Frank Act § 619.
35 Tier 1 capital is a core measure of a bank's financial strength from a regulatory perspective, and is used by the Federal Reserve Board to set guidelines determining the maximum extent to which a bank can leverage its equity capital base.
36 The Act uses the term "swap" to refer to most types of derivatives, excluding security-based derivatives and certain other exceptions including physically-settled forward contracts. Dodd-Frank Act § 721(a)(47).
37 Major Swap Participants are entities that are not swap dealers, but that: maintain a substantial position in swaps for any of the major swap categories as determined by the CFTC, allowing for the end-user exemption when mitigating or hedging commercial risk; have outstanding swaps that create substantial counterparty exposure that could have serious adverse effects on the financial system; or are financial entities that are highly leveraged relative to the amount of capital they hold and that are not subject to capital requirements established by an appropriate Federal banking agency; and that maintain a substantial position in outstanding swaps in any swap category as determined by the CFTC. Dodd-Frank Act § 721(a)(33) and § 761(a)(66).
38 Dodd-Frank Act § 731(e)(3).
39 Concerns about OTC derivatives were raised, among other places, during Congressional hearings following the financial crisis. On June 22, 2009, before the Senate Committee on Banking, Housing, and Urban Affairs, Gary Gensler, Chairman of the CFTC; Mary Shapiro, Chairman of the SEC; Patricia White, Associate Director of the Division of Research and Statistics for the Federal Reserve Board; and others discussed the risks presented by OTC derivatives markets, the role that OTC derivatives played in the financial crisis, and argued that increased transparency and oversight of OTC derivatives markets would reduce systemic risk, increase efficiency, and restore public trust in the financial markets.

non-financial end users.[40]
- Public reporting of price and transaction data for both cleared and uncleared derivatives transactions.

Energy and environmental markets advisory committee and carbon markets study[41]

The Dodd-Frank Act includes two provisions that specifically address carbon trading. The first is a high-level inter-agency working group to conduct a study on carbon market oversight, including oversight of the spot and derivatives markets. The second creates an "Energy and Environmental Markets Advisory committee" to serve as a public forum for exchanges, firms, end users and regulators, to discuss issues of concern regarding regulation of energy and environmental markets by the CFTC. These requirements suggest that policymakers may revisit the issue of carbon market oversight in the future, and that additional measures beyond those taken in the Dodd-Frank Act may be forthcoming.

5. Overlap between Carbon Market Oversight Proposals and the Dodd-Frank Act

In some instances, the Dodd-Frank Act includes provisions that are identical to or closely mirror those found in the climate bills. Policymakers designing cap-and-trade systems in the future would presumably start with the framework in the Dodd-Frank Act rather than create overlapping or potentially conflicting oversight requirements for a carbon market. Depending on the implementation of the Dodd-Frank Act and policymakers' assessments of the unique aspects of a carbon market, future legislative efforts may include additional market oversight mechanisms to address specific concerns unique to a carbon market.

The following section examines the market oversight mechanisms included in the major recent climate bills and how they compare to provisions in the Dodd-Frank Act.

Market regulator and jurisdiction

While the Markey bill initially proposed creating an Office of Carbon Market Oversight at the FERC, subsequent bills demonstrate an emerging consensus that the CFTC is best equipped to regulate emissions markets. The Kerry-Lieberman draft also included a significant role for the EPA, allowing the agency to define what instruments qualify as "greenhouse gas instruments" and thus become subject to CFTC oversight. Every major carbon market bill addresses government oversight of both the allowance and derivative markets, often creating a separate regulatory regime for each component of the market: auctions, spot transactions, and derivatives.

The Western Climate Initiative similarly concludes that allowance-based derivatives "should be treated as commodity derivatives for market oversight purposes," and the system designers pledged to work with regulators to ensure "robust and fully integrated" market oversight.[42] The Western Climate Initiative will seek to establish jurisdiction over market participants by requiring that they open accounts in a central tracking system in order to transact WCI-issued compliance instruments.[43]

One area of carbon market oversight not fully resolved in climate bills concerns transactions that occur on foreign exchanges. While bills that require market transactions to occur on registered exchanges may prevent trading of regulated allowances from occurring on foreign exchanges, such requirements may not apply to allowance-based derivatives. This may be particularly relevant for contracts that do not require the physical delivery of allowances. At the same time, the CFTC could use its existing legal authority to enter into information-sharing agreements with foreign market regulators to monitor transactions occurring outside the United States.[44]

40 The CFTC shall determine which contracts are standardized, in which case they are required to clear if such contracts are also accepted by a derivatives clearinghouse. In making its determination, the CFTC will consider the degree to which such contracts are sufficiently standardized in the marketplace, as evidenced by the size of outstanding notional exposures, trading liquidity, and adequate pricing data; the availability of sufficient financial infrastructure and expertise to clear such contracts; as well as consider the effect such a determination will have on the mitigation of systemic risk, among other criteria. Standardized contracts are also required to trade on registered exchanges if such exchange(s) make the swap available for trade. Dodd-Frank Act § 723.
41 Dodd-Frank Act § 750 and § 751.
42 Western Climate Initiative, Status Update on Market Oversight Recommendations, at 1, July 22, 2010, *available at* http://western-climateinitiative.org/component/remository/func-startdown/276/.
43 *Id.*
44 For a discussion on information sharing among market regulators, see Jonas Monast, Climate Change and Financial Market:

Under the Dodd-Frank Act, derivative instruments associated with a carbon market would fall under the jurisdiction of the CFTC. Notably, the law does not address spot market transactions and therefore does not assign a regulator to oversee that aspect of a carbon market.

Mandatory exchange trading and clearing requirements

Carbon market bills differ significantly with respect to requirements that carbon market transactions occur on registered exchanges and clear through registered clearinghouses. The spectrum of proposed regulatory requirements in this regard spans from none whatsoever, as in the case of the 2008 Lieberman-Warner bill,[45] to provisions that subject parts of the market to exchange and clearing requirements, to requirements that all segments of the market (including allowance-based derivatives) trade on an exchange and clear with only limited exemptions. For example, the Feinstein-Snowe bill—perhaps the most restrictive of all the carbon market bills on this issue—requires exchange trading and clearing for all spot market transactions, including offset transactions, and all "standardized" allowance-based derivatives, with a narrow exemption for non-standardized contracts.[46] Other bills, including the Waxman-Markey bill and the Kerry-Lieberman draft, are also dependent upon subsequent rulemaking by regulatory agencies to determine which contracts must exchange-trade and clear. In doing so, however, they provide more flexibility to regulators than Feinstein-Snowe.[47] Less restrictive still, the Markey bill and Dingell-Boucher draft require exchange trading and clearing for all spot market transactions, but place no such requirements on allowance-based derivatives transactions.

Two climate bills call for a direct regulatory role in establishing exchanges and clearing houses. The Feinstein-Snowe bill authorizes the CFTC to establish a carbon allowance trading facility, although it does not preclude private exchanges from filling this role. It also requires the CFTC to create a single, dedicated clearinghouse for regulated allowances and offsets, while again allowing a private company to fill this role.[48] The Cantwell-Collins bill restricts secondary trading of allowances to a dedicated carbon exchange to be established and administered by the Treasury.[49]

The Dodd-Frank Act requires exchange trading and clearing for most standardized derivatives transactions (see footnote 40). The Act grants more flexibility to the CFTC than the Feinstein-Snowe bill allows in determining which contracts are non-standardized and therefore exempt from exchange trading and clearinghouse requirements. The law exempts end users from the exchange trading and clearing requirements, provided (1) those entities are hedging or mitigating a commercial risk and (2) they notify the CFTC (in a manner to be set forth by regulation) how they meet their financial obligations associated with non-cleared swaps. End users will still have the option to require a swap to clear and exchange trade in those cases where an exemption is available. The CFTC shall prescribe rules or issue interpretations of the rules necessary to prevent abuse of the end-user exemption going forward. This end-user exemption from clearing and exchange trading requirements afforded by the Dodd-Frank Act is not found in any of the climate bills.

Position limits

Every carbon market bill introduced after the Lieberman-Warner bill has language establishing, or authorizing rulemaking that would establish, position limits covering the allowance and allowance-based derivatives markets, typically with the written aim of preventing "excessive speculation," market manipulation, or fraud. For example, both the Markey and Feinstein-Snowe bills instruct the FERC and CFTC, respectively, to create position limits as necessary "to prevent,

Regulating the Trade Side of Cap-and-Trade, 40 ELR 10051, 10064.

45 The final Senate floor version of Lieberman-Warner (S. 3036) would have established a federal interagency working group to determine oversight responsibilities and the promulgation of regulations covering all aspects of the carbon market.

46 Under the Feinstein-Snowe bill, contracts eligible for private, bilateral trade cannot settle against any price of one or more contracts that trade on a registered trading facility; their prices cannot be published or otherwise disseminated, nor referenced in another transaction; there cannot be "significant" volume of the applicable transaction or class of transactions, nor can the value of these transactions be "significant" in comparison to the value of the underlying carbon derivative market; and the contract must meet "other criteria the [CFTC] determines to be appropriate." S. 1399 § 202(12).

47 Before granting a contract exemption to clearing and exchange trading, H.R. 2454 requires the CFTC to determine that the contract is highly customized, transacted infrequently, does not serve a significant price-discovery function, and is being conducted by participants who can demonstrate the financial integrity of the contract and their firms. It does not, however, require the complete severing of price linkage between exchange-traded and OTC contracts called for in the Feinstein-Snowe Act. H.R. 2454 § 354(b)(2). Likewise, the Kerry-Lieberman discussion draft mandates exchange trading and clearing for all "greenhouse gas instruments," but allows the EPA wide discretion in determining what contracts fall under this definition. Kerry-Lieberman discussion draft § 2401(a)(26).

48 S. 1399 § 205(a) and § 206(a).

49 S. 2877 § 4(b)(7).

decrease, or eliminate burdens associated with excessive speculation relating to regulated instruments (which include allowances, derivatives, and offsets). Similarly, the Cantwell-Collins bill prohibits covered entities from purchasing a quantity of allowances that "significantly" (to be determined by Treasury) exceeds their anticipated compliance burden for the calendar year, or accumulating a quantity of allowances that "allows for speculation or manipulation, or interferes with normal market competition."[50] All of the climate bills that establish position limits provide exemptions for bona fide hedging transactions, with authority given to regulators to determine qualifying transactions.[51]

At the time of publication, the Western Climate Initiative's Markets Committee was still considering whether to include "holding limits" to address concerns about market power. The Committee commissioned a report by Jeffrey Harris, former CFTC chief economist, to assess concerns about manipulation and market power in the WCI market and make recommendations regarding holding limits.[52] In an update released on July 22, 2010, the WCI Partners indicated that they were still reviewing the issue.[53]

The Dodd-Frank Act significantly expands the CFTC's authority to impose aggregate position limits across derivative markets. These position limits are to be established in order to (1) diminish, eliminate, or prevent excessive speculation; (2) deter and prevent market manipulation, squeezes, and corners; (3) ensure sufficient market liquidity for bona fide hedgers; and (4) ensure that the price discovery function of the underlying market is not disrupted.[54] The Act exempts bona fide hedging transactions from position limits, and the law explicitly states that the CFTC may create additional exemptions to these position limits.[55]

Registration requirements

Most of the climate bills following the Lieberman-Warner bill include provisions requiring registration of brokers, dealers, and traders of carbon market instruments, and prohibit unregistered individuals from acting in these capacities.[56] Where trading is required to occur on exchanges and through clearinghouses, these facilities must also register with the appropriate regulatory authority, typically the CFTC. In addition, the Feinstein-Snowe bill stipulates eligibility and testing requirements for all carbon market traders, which include completion of CFTC-approved coursework covering applicable federal law, reporting requirements, and instruction in ethics.[57]

The Dodd-Frank Act's extension of CFTC oversight to OTC derivatives requires that traders, brokers, and advisors involved with carbon market derivative transactions now be registered with the CFTC. In addition, the Dodd-Frank Act adds new registration requirements for dealers and large traders of derivatives (defined as "major swap participants"; see footnote 38). The Act also creates a new regulated trading platform for derivatives, called a "swap execution facility." This new provision covers a large number of previously unregulated trading platforms that did not meet the definition of a designated contract market (i.e., trading facilities subject to the highest level of CFTC oversight).[58] The CEA requires

50 S. 2877 § 4(b)(6).
51 The Kerry-Lieberman discussion draft does not specify how position limits or exemptions to these limits would be established, instructing the CFTC to construct positions limits it "determines to be necessary and in the public interest." Kerry-Lieberman discussion draft § 2404.
52 Jeffrey H. Harris, Report on Holding Limits to the Western Climate Initiative Markets Committee, May 6, 2010, *available at* http://westernclimateinitiative.org/component/remository/func-startdown/237/.
53 Western Climate Initiative, Status Update on Market Oversight Recommendations, at 2, July 22, 2010, available at http://westernclimateinitiative.org/component/remository/func-startdown/276/. The cap-and-trade rule approved by the California Air Resources Board on December 16, 2010 included a holding limit requirement. California Air Resources Board, Resolution 10-42, Dec. 16, 2010; California EPA, Proposed Regulation to Implement the California Cap-and-Trade Program, Vol. II, App. D, § 96080 Trading, Oct. 28, 2010.
54 Dodd-Frank Act § 737(a).
55 Dodd-Frank Act § 737(a) and § 737(c). The Dodd-Frank Act stipulates a number of conditions defining how the CFTC shall identify bona fide hedging transactions, which generally cover the reduction of commercial risk, and allows for counterparties in these transactions to be exempt from position limits as well.
56 Bills that do not specify registration requirements include the Waxman-Markey bill and the Collins-Cantwell bill. The Waxman-Markey bill includes general provisions requiring FERC to establish regulations for effective and comprehensive carbon market oversight. The Collins-Cantwell bill limits participation in primary auction markets to covered entities, requires secondary trading to occur on a dedicated exchange established and administered by the Treasury, and instructs the CFTC, FERC and FTC to design regulation for the allowance-based derivatives market in which covered entities are prohibited to trade.
57 S. 1399 § 205(b).
58 Dodd-Frank Act § 721(a)(50). For a discussion of swap execution facilities and covered facilities, see Skadden Arps LLP, The Dodd-Frank Act, Commentary and Insights, at 65, available at http://www.skadden.com/Cimages/siteFile/Skadden_Insights_Spe-

registration of clearinghouses that process regulated derivative instruments.

Reporting requirements

The Markey bill introduced recordkeeping and reporting requirements for brokers, dealers, and exchange members trading in regulated carbon allowances and derivatives.[59] Subsequent bills generally follow the Markey bill's approach to reporting and recordkeeping. More significant has been the trend towards requiring increased frequency of public reporting of carbon market transaction data. For example, while the Markey bill calls for public, once-daily reporting of settlement prices, volume, open interest, and opening and closing ranges for all regulated instruments traded on a trading facility, [60] all four subsequent climate bills call for public, real-time reporting of allowance transaction data, as well as carbon derivative transactions in the case of Feinstein-Snowe.[61] Moreover, while the Waxman-Markey and Feinstein-Snowe bills allow for exemptions to the exchange trading and clearing requirements for certain customized derivative transactions—thereby freeing those transactions from real-time public reporting requirements—the bills still require market participants to report those transactions to the CFTC in a manner to be determined by the Commission.

The Waxman-Markey and Feinstein-Snowe bills include additional measures to increase the transparency and efficiency of carbon markets, calling for the establishment of a national market system ensuring best execution pricing of carbon market transactions across markets.[62] The national market system requirements cover trading of allowances in the case of the Waxman-Markey bill, and all regulated instruments in the case of the Feinstein-Snowe bill. The Feinstein-Snowe bill also calls for a centralized automated quotation system to display the market prices in real time.[63]

Similarly, the Western Climate Initiative's Markets Committee recommends a number of provisions to increase market transparency, including reporting detailed transaction information to an allowance tracking system and reporting of beneficial ownership.[64] As of July 2010 the WCI partner jurisdictions had not determined whether to require reporting of OTC transactions to a central repository, and were waiting in part on the outcome of market reform efforts in the U.S. and Canada.[65]

The Dodd-Frank Act requires public, real-time reporting of transaction and pricing data for all cleared derivatives, as well as derivatives not cleared pursuant to the end-user exemption, and market participants must report non-standardized derivatives transactions to public data repositories on a time frame to be determined by the CFTC.[66] While regulators will have direct access to information on uncleared derivatives held in swap data repositories, the Act limits requirements for the public reporting of these transactions to semiannual reporting of aggregate swap data. In crafting regulations governing the real-time public reporting of swap transaction and pricing data, the CFTC must ensure that these rules prevent the disclosure of market participant identities; that there be an appropriate time delay for reporting large notional swap transactions;[67] and that rules consider "whether the public disclosure will materially reduce market liquidity."[68]

The Dodd-Frank Act stops short of calling for the establishment of a national market and automated quote systems covering derivatives markets.

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59 H.R. 6186, 110th Cong., § 404(d)(2) and § 404(e).

60 H.R. 6186, 110th Cong., § 405(1a)(3)(G). Regulated instruments under the Markey bill include carbon allowances, offsets, and derivatives. H.R. 6186, 110th Cong., § 402(15).

61 H.R. 2454, § 401(b); Kerry-Lieberman discussion draft § 2410(d)(11); S. 1399 § 205(a)(H); S. 2877 § (4)(b)(7). Requirements for public, real-time reporting of all regulated GHG instruments found in the American Power Act may extend to the derivatives marketplace, but they are dependent upon subsequent rulemaking by EPA determining what instruments constitute "regulated greenhouse gas instruments." Kerry-Lieberman discussion draft § 2401(a)(26).

62 H.R. 2454, §401((b)(G); S. 1399 § 205(a)(3)(S).

63 S. 1399 §207.

64 When one entity holds an instrument on behalf of another entity, the latter is considered the beneficial owner. *See* Western Climate Initiative, Market Oversight Draft Recommendations, at § 4.3.3.

65 Western Climate Initiative, Status Update on Market Oversight Recommendations, at 1.

66 Dodd-Frank Act § 727.

67 The delay in reporting is to guard against the possibility that market participants, alerted to a large impending transaction, would seek to profit from that information by moving against that position.

68 Dodd-Frank Act § 727.

Dealers and major swap participants will face reporting and recordkeeping requirements under Dodd-Frank that include maintaining a complete audit trail for conducting accurate trade reconstructions.[69]

Restrictions on market participation[70]

Earlier climate bills do not impose limits on market participation. Similarly, the WCI Markets Committee recommends an open market, finding that "[b]road participation would be beneficial, and narrow participation harmful, to a compliance instrument market, especially in its early stages. Limiting participation to compliance entities would not be an effective policy to reduce the potential for market manipulation."[71]

Restrictions on market participation appeared in the Kerry-Lieberman draft and the Cantwell-Collins bill. The Kerry-Lieberman draft limits trading in "greenhouse gas instruments" to covered entities and other participants the CFTC, EPA, and Department of the Treasury determine "are necessary for a liquid and well-functioning market that would ensure not more than a reasonable rate of economic return." The draft also provides an exemption for contracts that trade on designated contract markets and do not provide for the physical delivery of the greenhouse gas instrument.[72] Because the EPA determines what contracts are regulated greenhouse gas instruments, it is unclear if these participation limits would extend to derivatives markets.

Under the Cantwell-Collins bill, the primary auction market for allowances (offsets are not compliance instruments under the bill) is limited to covered entities, which are themselves comprised of only around 3,000 producers and importers of fossil carbon.[73] Additionally, the bill prohibits covered entities from trading in carbon derivatives, and it leaves open the door for further restrictions on derivatives markets, directing the CFTC, FERC, and Federal Trade Commission to promulgate regulations limiting "unreasonable or excessive fluctuation in the price of carbon share derivatives and carbon shares (allowances)."[74]

The Dodd-Frank Act prohibits federally insured banks and their affiliates from using their own funds to trade in derivatives (defined as "proprietary trading" of derivatives), including carbon derivatives, although the Act grants exemptions for certain underwriting and market-making activities, as well as for purchases and sales on behalf of customers.[75] In allowing limited purchases of otherwise restricted instruments by banks for underwriting and market-making related activities, the Act does not set a fixed limit. Instead, the Act allows these purchases "to the extent that any such activities…are designed not to exceed the reasonably expected near term demands of clients, customers, or counterparties."[76] Further proprietary trading restrictions on banks that would extend to allowances and offsets may also be forthcoming, subject to rulemaking by federal banking agencies, the SEC, and the CFTC to promote the "safety and soundness of banking entities."[77]

The Dodd-Frank Act provides banks with a limited exemption to these proprietary trading restrictions, allowing investments in hedge funds and private equity funds that trade in derivatives to the extent that these investments total no more than three percent of the banking entity's Tier 1 capital. As three percent of Tier 1 capital is still several billions of dollars for the largest banks, the restriction may leave these institutions with sufficient room to participate in carbon markets if they wish.[78]

69 Dodd-Frank Act § 731(f-g).
70 Readers may be interested in a December 2010 Congressional Budget Office study that evaluates the likely impact of restrictions on market participation and transactions in allowance markets, "Evaluating Limits on Participation and Transactions in Markets for Emissions Allowances, December 2010, CBO.
71 Western Climate Initiative, Market Oversight Draft Recommendations, Apr. 1, 2010, at 25, *available at* http://www.westernclimateinitiative.org/component/remository/func-startdown/226/.
72 Kerry-Lieberman discussion draft § 2401(a)(37) and § 2408(e).
73 These would include coal, natural gas, and crude oil companies, along with importers of refined fuel products. Office of Senator Maria Cantwell. The Carbon Limits and Energy for American Renewal (CLEAR) Act: A Climate Policy that Pays Short and Long-Term Dividends – Questions and Answers, December 11, 2009, available at: http://cantwell.senate.gov/issues/CLEAR Act Detailed QA.pdf
74 S. 2877 § 4(b)(8).
75 Dodd-Frank Act § 619.
76 Dodd-Frank Act § 619(d)(1)(B).
77 Dodd-Frank Act § 619(h)(4).
78 For the five largest U.S. banks, 3% of Tier 1 capital amounts to $15.8 billion, according to Q1-2010 financial statements.

Manipulation, excessive speculation, and fraud

All of the climate bills to appear after the Lieberman-Warner bill prohibit, or call upon regulatory agencies to prohibit, price or market manipulation and fraud in carbon market transactions. In addition, the bills have specific language authorizing regulators to promulgate rules governing the business conduct of brokers, dealers and their associates.

Most bills require facilities seeking status as a registered carbon trading facility to demonstrate that they can prevent market manipulation through real-time market monitoring and enforcement of federal and exchange-specific rules, as well as through the exercise of emergency authority. These bills also require registered carbon trading facilities to establish rules minimizing conflicts of interest.

Two of the bills go further by banning certain trading practices that are common practice in commodities markets. Specifically, the Kerry-Lieberman draft prohibits short selling—the practice of selling a security that has been borrowed from a third party, with the intention of profiting by later buying back the security at a lower price and then returning the borrowed shares—with respect to regulated carbon market instruments. The Feinstein-Snowe bill includes a prohibition against "naked short selling" (i.e., selling a carbon market instrument without first borrowing [or owning] it). Naked short selling of securities has been effectively banned in the U.S. since 2004, although the practice is common in commodities markets.[79]

The Dodd-Frank Act addresses fraud through a range of enhanced oversight provisions affecting market institutions, products and participants—measures that in some instances go beyond those found in carbon market bills. Dealers in commodity-based derivatives and large traders defined as "major swap participants" will be subject to new business conduct requirements, including obligations to verify the eligibility of contract participants; to disclose information about the risks, or conflicts of interest that may exist in the swaps transaction; as well as comply with any other standards that the CFTC may determine "are appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of this Act."[80] As in proposed climate bills, requirements for registered derivatives exchanges include the prevention of market manipulation through real-time market monitoring, enforcement of federal and exchange-specific rules, and the ability to exercise emergency authority. Registered derivatives exchanges must also establish rules minimizing conflicts of interest in their decision-making processes.[81]

The Act provides new incentives and protections for whistleblowers who provide information to the CFTC about violations of the Commodity Exchange Act, including fraud, that results in successful prosecution of those crimes.[82] The Act also broadens the prohibitions against market manipulation, making it unlawful for any person to use, directly or indirectly, any manipulative or deceptive device in connection with any swap, or a contract for sale of any commodity in interstate commerce, or for future delivery on a registered exchange, in violation of rules to be promulgated by the CFTC within one year of enactment.[83] A major U.S. law firm has interpreted this provision as a shift from past court rulings construing CFTC law which have held that manipulation requires proof that a person deliberately intended to affect prices. The new provision, they contend, "may allow a court to determine from all of the evidence that the person knew or should have known that his actions would affect prices."[84] The Dodd-Frank Act does not include any prohibitions on short selling.

6. Unresolved issues in the Wake of the Dodd-Frank Act

As demonstrated above, there is significant overlap between the Dodd-Frank Act and the climate bills. The following section highlights key areas that received attention in the climate debates that remain unresolved in the wake of the Dodd-Frank Act.

79 Unlike transactions of securities that have already been issued, many commodities futures call for the physical delivery of goods such as wheat that have yet to be produced. These transactions are by definition 'naked short selling.'
80 Dodd-Frank Act § 731(h).
81 Dodd-Frank Act § 733(f).
82 Dodd-Frank Act § 748.
83 Dodd-Frank Act § 753.
84 Skadden, Arps, Slate, Meagher & Flom LLP & Affiliates, Energy Derivatives Under the Dodd-Frank Act, July 22, 2010 memorandum, available at: http://www.skadden.com/Index.cfm?contentID=51&itemID=2171.

Regulation of the allowance (spot) market

A major distinction between the Dodd-Frank Act and the climate bills introduced in the 110th and 111th Congresses is the regulation of spot market activity. Most climate bills include specific provisions governing the spot market, while the Dodd-Frank Act does not directly regulate these markets. Like other commodity markets, the new Act would not govern who may engage in spot trading in GHG allowances and certified offsets, where that trading may occur, quantities that a market participant may control, and the type of information that must be made available to the public. Policymakers considering future market-based mechanisms to limit GHG emissions will have to determine whether a carbon market is sufficiently different from other commodity markets as to require specific spot market regulation.

Regulation of end-user transactions

As described above, the Dodd-Frank Act exempts end users (i.e., bona fide commercial hedgers) from the new exchange trading and clearing requirements for standardized derivatives. In a mandatory cap-and-trade system, this exemption would presumably apply to any entity with a compliance obligation. Because a high percentage of derivative transactions would likely involve compliance entities, a majority of market activity may therefore qualify for the exemption. While some climate bills exempt end users from position limits, they do not include specific exemptions from exchange trading and clearing requirements. Policymakers would therefore face the choice of (1) removing or limiting the exemptions for compliance entities covered by a cap-and-trade bill, (2) relying on the other reporting requirements in the Dodd-Frank Act to adequately monitor the market activity that is exempt from exchange trading and clearing requirements, or (3) seeking alternate mechanisms to increase transparency and limit concerns about systemic risk in the carbon market. Market behavior in other energy markets prior to the operation of a new carbon market may inform this decision. For example, end users that qualify for the exemptions may nonetheless choose to conduct their trades on exchanges. In the event that a large percentage of transactions involving end users trade on exchanges and clear through regulated clearinghouses, lawmakers may determine that additional measures are unnecessary for the carbon market, or they may grant the CFTC discretion to implement additional measures to monitor end-user activity if necessary.

Regulation of offset credit transactions

Under current business practices, contracts may grant an offset project developer the rights to the offset credits produced by the project, and those contracts may change owners before the project is mature enough to apply for certification of the offset credits. The CFTC would likely find that these contracts do not qualify as a swap, however. If the contract grants to the developer the rights to credits produced by the project, but does not specify a specific number of credits, the Commission may determine that it is simply a business contract and not subject to its jurisdiction. Even if the contract grants to the contract holder rights to a specific number of credits, the transaction would most likely qualify under an exemption to the definition of a "swap" because it is a contract for deferred shipment and physical delivery of a non-financial commodity.[85] Furthermore, until certified by a government regulator as a compliance instrument, the contracts would not represent an official reduction in emissions and therefore would not likely meet the definition of an emission swap. In the event the CFTC does determine that project development contracts meet the definition of a swap, it is not likely that the Commission would consider contracts relating to specific offset projects as standardized, thereby exempting the transactions from mandatory exchange trading and clearing requirements.

Depending on the scope and specificity of the CFTC's upcoming regulations, future legislation or rulemaking may need to clarify the types of offset-related financial transactions that will be subject to regulation.

Limitations on carbon market participation

The Dodd-Frank Act would not restrict participation in the carbon market beyond the general limitations on trading by financial institutions, provided market participants meet the registration requirements. This is consistent with most major climate bills and the approach recommended by the WCI Partner jurisdictions, but is in conflict with the two most recent proposals considered in the Senates—the Cantwell-Collins bill and the Kerry-Lieberman draft. Policymakers working on future market-based mechanisms to limit GHG emissions may revisit whether concerns about excessive speculation and manipulation in the carbon market merit restrictions on market participation.

85 Dodd-Frank Act § 721(a)(42).

7. Conclusion

The Dodd-Frank Act addresses what many identify as a key source of risk in financial markets—lack of sufficient oversight of the OTC derivatives markets. In doing so, it mirrors several of the oversight provisions called for in climate bills, including providing the CFTC with regulatory oversight over carbon derivatives; requiring exchange trading and clearing of those instruments; requiring increased public reporting of price and transaction data; requiring regulators to establish position limits across markets; and including enhanced measures to guard against market fraud. In some instances, market oversight provisions in the Dodd-Frank Act go beyond those found in climate bills, particularly the increased capital, margin and reporting requirements for derivative dealers and large traders, and the additional measures aimed at deterring market fraud and manipulation. However, as noted above, the exemptions to clearing and exchange trading provided in the Act to end users may cover a significant share of carbon market trading activity, and therefore policymakers and regulators may wish to revisit this issue. Similarly, policymakers will need to determine what type of additional regulatory oversight, if any, is necessary for spot markets and transactions involving pre-certified offset contracts—both of which the Dodd-Frank Act leaves unaddressed.

the Nicholas Institute

The Nicholas Institute for Environmental Policy Solutions at Duke University is a nonpartisan institute founded in 2005 to help decision makers in government, the private sector, and the nonprofit community address critical environmental challenges. The Institute responds to the demand for high-quality and timely data and acts as an "honest broker" in policy debates by convening and fostering open, ongoing dialogue between stakeholders on all sides of the issues and providing policy-relevant analysis based on academic research. The Institute's leadership and staff leverage the broad expertise of Duke University as well as public and private partners worldwide. Since its inception, the Institute has earned a distinguished reputation for its innovative approach to developing multilateral, nonpartisan, and economically viable solutions to pressing environmental challenges.

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