



# Speculating on Carbon

## THE NEXT TOXIC ASSET

### SUMMARY

Global climate change negotiations currently treat greenhouse gas emissions as a tradable commodity.

Carbon trading on poorly regulated commodity futures markets has disrupted efforts to address climate change.

The planned expansion of carbon trading could also adversely affect food security.

A carbon derivatives market is unnecessary and should not be part of national or international climate policy.

### Carbon Trading in the Kyoto Protocol

At the Kyoto Protocol negotiations in 1997, Vice President Al Gore successfully persuaded United Nations Framework Convention on Climate Change (UNFCCC) parties to accept the trading of greenhouse gas (GHG) emissions as one strategy industrialized countries could use to meet GHG-reduction targets. A global carbon market would set rules for trading GHG-emission credits and offset credits, largely from agricultural and forestry activities that sequester carbon. The market mechanism was incorporated as Article 17 of the Kyoto Protocol.

The terms for buying and selling GHG emissions continue to be at the center of climate policy discussions both in the U.S. and internationally. Developed countries, particularly the U.S. and EU, won't commit to GHG reductions until a global carbon market is established. The European Union's Emissions Trading Scheme (ETS) already allows emitters to meet at least half their reduction

mandates by buying offset credits outside the EU. Most climate bills in the U.S. Congress would establish a carbon market with offset credits.

Developed countries also claim that the Kyoto Protocol allows for the creation of carbon derivatives: a secondary market based on the value of carbon emission and offset credits. For example, derivatives could package high-risk offset credits with relatively low-risk oil and agricultural contracts. Carbon derivatives, they insist, are necessary to provide adequate capital for trading and will help determine the "right" price to spur GHG emitters into reducing emissions to meet established targets. But a carbon derivatives market would enable big financial institutions to drive carbon prices up and down, confusing and distorting the market, just as Wall Street speculators did with food and energy prices in 2007 and 2008.

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## Speculation and Agricultural Prices

Carbon will be traded on inadequately regulated commodity exchanges. The role of speculators in destabilizing agriculture markets offers some insights into how an expanded carbon market might perform.

From April 2007 to April 2008, the UN's food price index shot up 85 percent. Then, aggregate commodity prices fell by 60 percent from July through mid-November 2008. This price spike and drop was devastating, particularly for developing countries that rely on food imports and exports. By the UN Food and Agriculture Organization's (FAO) estimate, the number of those without enough to eat rose from 850 million in 2006 to nearly one billion in 2008. While not the only cause of the food price crisis, there is growing consensus that speculation played a major role in destabilizing prices. The United Nations Conference on Trade and Development (UNCTAD) reported that speculator trading on commodities futures markets drove agriculture prices up and down to an extent that could not be explained by supply and demand. A Senate committee reached a similar conclusion with regard to extreme volatility in wheat and oil markets from 2007–2009.

Financial speculators utilized two key tools to distort commodity futures markets. One, commodity index funds bundle up to 24 different types of commodity futures contracts in a financial instrument. These contracts may be agricultural (e.g., corn or wheat) or non-agricultural (e.g., gold or oil). Fund formulas tend to be energy-trade dominant, so oil price swings affect indexed agricultural contract prices directly and non-indexed contracts indirectly because of the "herd mentality" of traders.

Index speculators invest to drive the price up and then cash-in about 80 days later, bringing prices down. And unlike traditional buyers and sellers who take delivery of physical commodities (say corn), speculators are not subject to regulated position limits (the total number of contracts held for a given period). This exemption allows

index funds to greatly influence prices. For example, in July 2008, about \$317 billion was invested in U.S. commodity index funds. One analyst estimates that about a third of all agricultural futures contracts in 2006–2008 were held by index funds. U.S. agricultural futures prices help to set cash prices both domestically and around the world.

A second tool used by Wall Street speculators are over-the-counter (OTC) trades which are executed between firms or in unregulated trading venues rather than on public and regulated exchanges. Many of the index fund trades are OTC trades and are not reported to government regulators. This shadow market prevents government regulators from having enough timely information to assess whether speculators are distorting prices through massive bets and sell-offs.

## The Looming Carbon Derivatives Market

If Congress approves a climate change bill with a carbon trading provision, the Congressional Budget Office estimates that by 2020, carbon allowance credits will be worth between \$50 and \$300 billion a year in 2006 dollars. Carbon derivatives, derived from the value of those credits, will create "what could be the most important commodity market ever," according to Commodity Futures Trading Commission's (CFTC) Bart Chilton. The CFTC estimates that the carbon derivative market could be worth \$2 trillion by 2017. The value of all CFTC-regulated agricultural and non-agricultural futures contracts in 2008 was estimated at \$4.8 trillion.

Once a carbon market, and its associated secondary market, is established, it is likely that carbon derivatives will be bundled into index funds. The sharp projected increase in the volume and value of carbon derivative contracts will induce extreme price volatility in commodity markets. To the extent that carbon derivatives are bundled into commodity index funds, it is likely that carbon prices will strongly influence both agricultural futures contract and cash prices.

Current regulatory exemptions would allow OTC trades of carbon derivatives to mask the influence of speculators. OTC carbon derivatives would prevent regulators from having enough daily trading data to assess whether there is excessive speculation. Extreme carbon price volatility under the European Union's Emissions Trading Scheme (ETS) has already discouraged major GHG emitters from investing in low-carbon technology. Under proposed U.S. legislation for a carbon derivatives market, the ETS experience would be repeated but on a larger and more damaging scale.

Remarkably, there are no publicly available estimates on the relation of carbon price volatility to commodity prices in general, or specifically to agricultural futures prices. Thus far, the U.S. and the world have not incorporated many of the lessons learned from the speculator-driven price volatility experience in 2007 and 2008 into the design of a new carbon market.

Some U.S. climate proposals being considered by Congress include limits on how financial speculators could influence the market. However, carbon market regulation is explicitly subordinate to the CFTC and the Securities Exchange Commission—both of whose authority is being revised by Congress as part of financial reform.

## No Need for Carbon Derivatives

IATP is highly skeptical that current U.S. cap-and-trade proposals will induce emitters to meet GHG-reduction goals and ensure equity for those most affected by climate change. The environmental and economic damage that a carbon derivatives market failure could cause is considerable. Overall, there is no need for a carbon derivatives market and such a secondary market should not be part of national or international climate policy.

*\*This fact sheet was based on a longer report by Steve Suppan of the same title. Report and full list of references available at [www.iatp.org/climate](http://www.iatp.org/climate).*