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When Carbon Becomes Money

On New Year's Day, carbon became money. It's the earth's latest currency, and represents the auspicious intersection of climate change science and business imperative. Carbon as currency will have a peculiar presence. There will be neither carbon coins nor carbon bills, nor guarded bank vaults of carbon, nor armored cars to transport carbon safe from theft, nor enforcers out to crack carbon counterfeiting rings. Yet now that the European Union's Emissions Trading Mechanism has been launched, carbon in its gaseous form has acquired a negotiable value in the modern industrial economy.

Even though its value is but a pittance compared to carbon in its diamond form - it is still a momentous occasion. Admittedly, it will be a while before the nightly news reports on the fluctuating price of a ton of CO₂, or before carbon will compete with commodities like gold or cotton or grain for the attention of ardent speculators. Yet as we make our way down an uncharted path into an increasingly carbon-constrained future, it will become more and more expensive for industries to buy tons of carbon credits. The price of the privilege of releasing a ton of CO₂ or its equivalent into the atmosphere will start to exert an influence over economic decision making in the halls of the most powerful governments and inside the boardrooms of the world's biggest corporations.

Actually, it has already started to happen. Forward-thinking companies are taking action to "future-proof" their business interests. These companies are not waiting for the climate science debate to be resolved, but rather are assuming that the risk of significant climate change is an issue of vital importance requiring action. They are examining the risk posed to profitability by their carbon emission footprint and making strategic decisions now to mitigate risk and position themselves competitively in the future.

The pioneering efforts made by oil giant BP are well-documented. Not only did the company reduce greenhouse gas emissions 18 percent between 1998 and 2001, it also reaped \$650 million of cost savings through energy efficiency measures in the process. The company also enjoyed an unquantifiable advantage through the experience its managers gained trading carbon credits in an internal mechanism. As a result, BP is well-positioned to understand the EU's carbon trading mechanism and participate in the trading of the new carbon currency.

What is less well-known and equally significant are the efforts of other multinationals who similarly have evolved internal infrastructures of expertise. They, too, are well-positioned to "future-proof" their business interests. For example, IBM reports \$791 million of energy savings and a 65 percent reduction in CO₂ over 1990 levels. Its managers are responsible for realizing a 4 percent energy efficiency goal every year. Lafarge, the world's largest cement maker, has an enormous carbon footprint. It is developing technology and laying down supply lines to use waste slag from the steel industry to replace traditional raw materials in order to reduce emissions. HSBC, one of the world's leading financial institutions, recently

committed itself to going carbon neutral. A primary motivation is that the company wishes to deepen its first-hand experience and understanding of energy efficiency, emissions trading, and related policies and technologies. It's yet another strategy for future-proofing. The bank itself does not have a large carbon footprint, but it makes investments and loans to companies whose businesses may be at risk unless they learn to manage their affairs in a carbon constrained world. By getting its own house in order, HSBC expects to develop the experience and expertise to better work with its clients.

In every industrial and economic sector, there is similar activity. With the launch of the EU emissions trading scheme and the coming into force of Kyoto on February 16, carbon now has become a real and tangible cost to business. It is provoking new thinking, new action, and new ways of doing business. It has created a brand new arena for competitive activity and innovation.

In the policymaking arena the price of carbon is also a focus of attention. In the United States, which is the biggest greenhouse gas emitter in the world, a bipartisan group called the National Commission on Energy Policy, recently issued a report calling for mandatory curbs on emissions, linked to a scheme for trading carbon credits. It's a thorny issue in the US which has rejected Kyoto. To balance concerns of the business sector that curbs might slow down the economy, the NCEP recommends a safety valve provision: imposing a ceiling price of \$7 for a ton of CO₂ emissions. A high-profile bill before the US congress (called McCain- Lieberman) that narrowly missed passage set a level of \$9-\$16. Under Kyoto, some have estimated the cost of a ton of CO₂ would be \$51 for American firms by 2010.

How much is a ton of carbon worth? At this point, it's not the answer that is important, it's the question. For it is a seminal question that leads to many others. How, for example, will the EU trading scheme and Kyoto realign international economic relationships? The cap and trade scheme that Kyoto has brought to Europe is cementing relations between governments and businesses in the EU. Russia's ratification of Kyoto helped it to forge stronger economic ties and attract investment from its neighbors.

What effect will this activity have on the US? American companies are not exempt from responding, since many have significant operations in Europe. One case in point is DuPont: 40 percent of production and 50 percent of sales are outside the US. Will US businesses like these lead reluctant policymakers to have the courage to enact mandatory curbs? Progressive state governments (for example California, New York, and other Northeastern states) in the US are pushing ahead on their own, enacting their own standards. A northeast regional emissions trading scheme is expected to be launched this year.

Will these measures lead to links with the European schemes? Might carbon credits be traded internationally? Might state and business action in the US force federal response and action?

Just a short time ago, it was hard to imagine what a world with Kyoto would be like. Skeptics and supporters both have enduring concerns about the Treaty's flaws and omissions, and work continues, now looking seriously beyond Kyoto for the first time. But with the Treaty's passage and the launch of the EU emissions trading scheme, a little genie has just come out of the bottle. We're about to really find out what is going to happen now that carbon is money.