

## **Carbon on Credit**

### Global Warming and the Derivatives Markets

We in the environmental community may be ‘missing the forest for the trees.’

Sure enough, we know that every purchase we make counts---and that taken together, all our choices make up a ‘forest’ of environmentally crucial decisions. But are we missing an even *bigger* forest?

The answer to that question lies buried the back pages of the financial press. But let’s face it: we environmentalists may read a bit about carbon-trading programs, or solar energy tax credits. But do we read about the ‘money supply,’ the ‘yen carry trade,’ and ‘credit instruments?’ No way. We live a world apart from the Wall Street financial wizards.

But it may very well be that this world is where a really *giant* forest lies.

Think about this: can the average American really *afford* to own a gas-guzzler, to buy a house that is half again as large as he or she really needs, and install cabinets made of wood imported from some distant rain forest? Probably not. He or she usually borrows the money at a historically low interest rate, as often as not using the ‘equity’ in an over-priced home. Where does this ‘equity’ come from? Where do the low-interest car loans come from? *Why is there so much credit available to us?*

Nobody seems to be asking the question: is there a relationship between the accelerating consumption of carbon resources and the accelerating ‘velocity’ of the credit markets?

The path to understanding this relationship requires us to learn about a concept called the ‘derivatives market,’ which most economists view as a positive innovation that arose from obscurity over the past thirty years or so to become a predominant factor in the global financial markets.

Before your eyes glaze over, indulge me for a few moments to explain.

Thirty years ago, if you wanted to borrow money to buy a car or build a factory, you most likely borrowed from a local banker who carefully assessed your ability to repay the loan, and then held the loan to maturity. The bank made its money by collecting interest from you, always being careful to keep its default rate low enough to remain profitable and to keep on the right side of the bank examiners.

A New Global “Monoculture of Money”

Those days are over. The bank now holds your loan for a few days or weeks, and then sells it into a global ‘secondary market.’ The bank makes its money by charging loan fees, and moving the money in and out the door as quickly as it can in order to generate

more fees. This practice increases the *velocity* of money creation, because the bank's reserves are used to back up an increasingly large *volume* of loans.

But this is only the beginning. Once the loans are sold, they are 'sliced and diced' by unregulated---and very profitable---financial entities. These entities make all sorts of private deals based on the value of the income stream from the loans. These deals are collectively known as the 'credit derivatives market,' since the contracts are *derived* from underlying assets. A major reason these markets are unregulated is because they did not exist during the 1930's, when the Securities and Exchange Commission was created to protect the integrity of the financial markets.

Today, the global credit derivatives market is over *five times* larger than the value of all the goods and services produced in the world. And the high level of profitability in these markets has only exacerbated the gap between the super-rich traders of 'electronic assets' and the rest of us who make a living producing things and providing services that ordinary people need.

### Credit on Steroids

Nonetheless, the conventional wisdom on Wall Street is that the widespread use of 'credit derivatives' has distributed risk throughout the world's financial system in a way that increases its stability.

But there is a credible minority of economists who think that the contrary is true: that this *perception* of stability has encouraged greater risk-taking than has traditionally been seen to be prudent. As a consequence of this perception, the premium for making risky loans and investments (read: interest rate) is lower than it should be.

They argue that the mathematical models for predicting risk do not take sufficient account of unexpected events. In fact, back in 1998, the entire global financial system narrowly avoided a meltdown when the 'sophisticated' predictive models developed by two Nobel Laureates failed to work as planned, and precipitated a financial crisis involving dozens of institutions around the world.

### An Environmentalist Perspective on Capital Structures

We environmentalists are primed to understand the risks involved in the global 'monoculture of money.' Like any monoculture, it works fine for a while---until it doesn't. Then the whole system crashes. We understand intuitively that localized money systems would be less susceptible to global financial crises.

The 'Nervous Nellie' economists (and, by the way, Warren Buffet) are worried about another global credit crisis that will prove impossible to contain. They question whether all these derivative contracts could be honored if there was a sudden shift in interest rates, currency values, or stock prices. There are tens of thousands of these highly leveraged

‘counterparties’---and nobody is making sure that their schemes will work in a major crisis.

Many major banks have bet more than their entire equity on these less-than-transparent financial arrangements, and they would become insolvent overnight if something went awry. These are the same banks that safeguard the savings of ordinary working Americans.

But we environmentalists have something more than our bank accounts to worry about: the environmental consequences of all the credit sloshing around the globe at the speed of light. If we were to live by more traditional rules of credit allocation guided by community bankers, I suspect that we would consume far fewer resources.

We environmentalists need to do a better job of informing ourselves about the financial markets. A good place to start is by picking up a Financial Times, Wall Street Journal, or New York Times, and begin to follow the debate brewing about the ‘excess liquidity’ and ‘hot money’ flowing around the world. It’s not gripping reading, I admit, and it’s not for everybody. But it grows on you.

The day will come when there is another meltdown in the derivatives market, and those who are advocating for better oversight will need our support. We will have a chance to make the environmental argument for more transparency in the global credit markets. We need to be prepared for that opportunity.

Jim Cochran

Swanton Berry Farm  
Davenport, CA

Ed. Note: Mr. Cochran farms strawberries and mixed vegetables near San Francisco, California. He was among recipients from 12 nations of the EPA’s 2002 Stratospheric Ozone Protection Award, recognizing his work in proving the economic viability of farming strawberries without the use of the ozone-depleting fumigant methyl bromide. He is a member of the Stewardship Council of the Roots of Change Fund, a collaboration of twelve foundations dedicated to transforming the California food system by 2030.