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# Economic Speculation Seen as Solution to World's Woes

By **Randall Turk**

The power of economic speculation may someday solve the world's environmental problems. Financial markets already are cooperating with governments to make it happen, a financial pioneer says.

[Richard Sandor](#), an economist who originated the first spot and futures markets in environmental contracts, on Monday was a principal speaker during a university conference on international policy. The conference, which has drawn international leaders in business and government, concludes today.

Sandor said trading in futures contracts, once restricted to agricultural commodities and metals, grew more sophisticated in the 1970s when the government began regulating them. It was during the '70s that trading began in currencies and financial futures, he said.

Sandor was at the forefront of developing futures and options contracts on Treasury bond and Treasury note interest rates. Today he concentrates on applying market-based solutions to social problems such as protecting the environment.

Credit cards, pharmacy prescriptions and even cable TV networks are being stimulated by the sale of junk bonds traded in the futures markets, Sandor said. "Recently, United Services Auto Association issued a bond indexed to hurricanes."

"We're at the dawn of an era when the most important commodities will be standardized - the air we breathe and the water we drink."

Acid rain, a phenomenon that kills plant life when precipitation combines with pollutants in the air, was eliminated in the Northeast when the problem created a commodity to be traded, he said.

Sandor helped establish futures contracts based on tradeable sulfur dioxide emission allowances established by the 1990 Clean Air Act. The Act required industrial plants to cut by 50 percent the emissions responsible for acid rain. Plants that did a better job at cleaning up their smokestacks were

allowed to transfer or sell their emissions allowances to other plants that were not as efficient. A commodity was formed.

"The Clean Air Act said that, as a method of compliance, you could deliver somebody else's promise to clean up the environment. Plants getting below the target level could sell the credit for it to some other plant."

Sandor said investments pegged to the value of emissions allowances were responsible for dramatic reduction in the cost of cleaning up the sulfur dioxide problem. "In the '70s, the best private sector estimates to clean up sulfur dioxide was \$1,500 per ton," he said. "The EPA said it could cost \$600 a ton, or \$5 billion a year."

"Today, futures contracts for sulfur dioxide credits are trading at \$90 a ton. "It's now a \$1 billion problem." Last year the reduced sulfur dioxide levels saved about \$13 billion in medical benefits alone, he said.

Sandor said government mandates for low sulphur coal and deregulation of the power industry deserve some of the credit for reducing acid rain, but most of the improvement came from futures trading. "People sharpen their pencils when their money is involved," he said.

Sandor is chairman and chief executive officer of Centre Financial Products Limited, the managing agent for Centre Trading Partners LP, a risk management firm specializing in derivative market applications to develop new products and markets. Centre Trading trades products that bridge the gap between capital and insurance markets.

For three years, he was vice president and chief economist at the Chicago Board of Trade. He has been a professor of economics at the University of California at Berkeley, Stanford University. He has also taught economics at Northwestern University and Columbia University.

Sandor said similar market-inspired programs are beginning to whittle away at the global warming problem. Global warming of just one or two degrees can cause alarming climate shifts, scientists say. The problem occurs caused by "greenhouse" gases trapped in the atmosphere.