



# Sustainability Lecture Series

- Richard L. Sandor

## About Richard

**Richard L. Sandor** is an American businessman, economist, and entrepreneur. Dr. Sandor is Chairman and Chief Executive Officer of Environmental Financial Products LLC, which specializes in inventing, designing and developing new financial markets with a special emphasis on investment advisory services. He is widely recognized as the “father of financial futures” for his pioneering work in developing the first interest rate futures contract in the 1970s, when he served as chief economist and vice president of the **Chicago Board of Trade** (CBOT).

Sandor is also the founder of the **Chicago Climate Exchange** (CCX) - the world’s first exchange to facilitate the reduction and trading of all six greenhouse gases. In 2007, he was named the “father of carbon trading” by Time Magazine for his work in designing, developing and launching CCX and affiliated exchanges. He is currently a Lecturer at the University of Chicago Law School and a Distinguished Professor of Environmental Finance at the Guanghua School of Management at Peking University.

Sandor is known for asserting that the next financial revolution will be in the convergence of the financial markets and the environment. He is often credited for founding the field of Environmental Finance. His first book, “**Good Derivatives: A Story of Financial and Environmental Innovation**”, published by John Wiley & Sons in February 2012.

## Education

Sandor received his Bachelor of Arts degree from the City University of New York, Brooklyn College, and holds a Ph.D. in Economics from the University of Minnesota

## Innovations

As a young professor on sabbatical from the University of California, Berkeley, in the 1970s, Richard Sandor became the chief economist and vice president of the Chicago Board of Trade (CBOT). At the CBOT, Sandor not only pioneered the first interest rate futures contract, but the most widely traded and imitated interest-rate futures in the world, the Treasury bond futures contract. This revolutionized the field of finance and earned him the title of “father of financial futures.” Sandor originally coined the term “derivatives” to describe the futures and options contracts that were traded on the Chicago exchanges. Its definition was subsequently expanded to include not only regulated products on futures transactions, but any customized product traded off the exchange, i.e. bilateral OTC transactions. Sandor was honored by the CBOT and the City of Chicago in 1992 for the creation of financial futures.

Sandor was also a strong proponent of electronic trading at a time when most exchanges favored open-outcry. In fact, he had presented the case and designed the platform for electronic trading as early as 1970 - even before the concept of electronic trading was patented. At Berkeley, he was the project leader of the **California Commodity Research Project** (CCARP), which looked at the feasibility of establishing a for-profit, all-electronic exchange in at the time when none existed.

At the CBOT, Sandor championed innovative financial instruments such as event-linked derivatives. Sandor served as Vice Chairman of the CBOT Insurance Committee and was the originator and co-author of the catastrophe and crop insurance futures and options contracts.

From 1991 to 1994, Sandor was Chairman of the **Chicago Board of Trade Clean Air Committee**, which developed the first spot and futures markets for sulfur dioxide (SO<sub>2</sub>) emission allowances and supervised the annual allowance auctions conducted on behalf of the U.S. Environmental Protection Agency. He also led the effort to create the **Dow Jones Sustainability Index (DJSI)** - the first global index that tracks the financial performance of leading sustainability-driven companies worldwide.

Sandor has held a variety of senior executive positions in financial service companies, such as Drexel Burnham Lambert, Kidder Peabody and Banque Indosuez. Sandor has served on numerous Exchange committees and boards, including the Chicago Board of Trade (CBOT), the **Chicago Mercantile Exchange (CME)**, **Intercontinental Exchange (ICE)**, **London International Financial Futures Exchanges (Liffe)** and the **International Advisory Board of Marché à Terme International de France (MATIF)**. Sandor played an advisory role in helping **Swiss Options and Financial Futures Exchange (SOFFEX)** become the world's first electronic exchange. Teaming up with Boston-based Battery Ventures, Sandor also helped to promote Liffe's electronic trading platform and is credited for Liffe's successful contract- the universal stock futures contract. He also assisted the New York Mercantile Exchange (NYMEX) on the design of the options contract for crude oil.

Sandor has served several times as an advisor to the **Commodity Futures Trading Commission (CFTC)** on matters related to financial, energy and environmental futures.

## Carbon Trading

Using Environmental Financial Products as the incubator, Sandor founded the Climate Exchange PLC family of companies. They include Chicago Climate Exchange (CCX); the Chicago Climate Futures Exchange (CCFE), a futures branch of the former; and European Climate Exchange (ECX), Europe's leading exchange operating in the European Union Emissions Trading Scheme (EU ETS) and the benchmark for world carbon prices. Additional global affiliates included the Tianjin Climate Exchange in China, the Montreal Climate Exchange in Canada and Envex in Australia. The emissions covered under the Chicago Climate Exchange were larger than that of Germany under the European Union Emissions Trading Scheme. It included 50 states and all major sectors of the U.S. economy. Its membership represented 17 percent of the companies in the Dow Jones Industrial Average, and 20 percent of the largest CO<sub>2</sub> emitting electrical utilities in the U.S., and 11 percent of Fortune 100 companies.

Recently, Sandor and his firm has ventured into water trading. EFP was retained to study the possibility of a water quantity exchange for the state of New Mexico. Sandor also researched the viability of a water market in the Great Lakes region. Additionally, Environmental Financial Products was engaged by Alberta Water Research Institute to examine the benefits of implementing a rules-based exchange for water resources in Alberta, Canada and helped develop a pilot nutrient trading effort in Pennsylvania.

In August 2002, Sandor was chosen by Time magazine as one of its "Heroes for the Planet" for his work as the founder of the Chicago Climate Exchange. Five years later, he appeared in Time magazine's fifth annual list of "Heroes of the Environment" for his work as "the father of carbon trading." In 1992 Sandor served as an expert advisor to the UN Conference on Trade and Development on tradable entitlements for the reduction of greenhouse gas emissions.

## Awards

In November 2004, Sandor was the recipient of an Honorary Degree of Doctor of Science (*honoris causa*) by the Swiss Federal Institute of Technology (ETH) of Zurich, Switzerland for his work on the design and implementation of innovative and flexible market-based mechanisms to address environmental concerns. In 2010, Sandor received the

John H. Dales Memorial “Leadership in Environmental Markets Award” from the Environmental Markets Association.

Sandor is the recipient of the McGraw-Hill Energy Award (1999), the Life Time Achievement award from the Global Association of Risk Professionals (2001), and the Milken Institute’s award for Distinguished Economic Research (2003). In May 2005, Dr. Sandor was named by “Treasury and Risk Management” magazine as one of the “100 Most Influential People in Finance.” He is also the recipient of the 2008 Financial Management Association’s Outstanding Financial Executive Award, and the Ernst & Young’s Entrepreneur of the Year 2009 Award in the “green” category.

### Board Memberships

Sandor serves on the board of **American Electric Power** (AEP), one of the largest utilities in the United States and of the Volatility Exchange. Sandor also serves on the board of Clean Energy Trust, a Chicago-based not-for-profit. He is an Advisory Board Member for the Center for Financial Stability and a Senior Fellow at the Milken Institute.

Sandor and his wife, Ellen Sandor, are collectors of photography and are involved in numerous civic and charitable activities. They are member of the Board of Governors of The School of the Art Institute of Chicago and are Major Benefactors of the Art Institute of Chicago. He also served as a Trustee for the International Center of Photography, New York.

Sandor is a Distinguished Professor of Environmental Finance at Guanghai School of Management at Peking University and a Lecturer in Law at the University of Chicago Law School, where he teaches a course on the “Law and Economics of Natural Resources.” He is a member of the TERI School of Management Advisory Committee in India. Sandor previously taught at the University of California, Berkeley, Stanford University, Columbia University Graduate School of Business and at the Kellogg Graduate School of Management at Northwestern University, where he was the first Martin C. Remer Distinguished Professor of Finance.