

ENVIRONMENTAL FINANCIAL PRODUCTS (EFP)

AMERICAN FINANCIAL EXCHANGE (AFX)

Richard L. Sandor

Chairman & CEO

EEMAC Meeting Slides

Thursday, November 7, 2019

Market Evolution: 7 Stages of Market Creation

1. Structural change
2. Standardization
3. Evidence of ownership
4. Development of informal spot and forward markets.
5. Emergence of securities and commodities exchanges
6. Creation of organized futures markets and options (Magic 9)
7. Proliferation of over-the-counter markets

Examples of the Seven Stage Market Evolution Process

- Dutch East India Company (1605)
- Wheat (1848)
- Financial Futures(1975)
- SO₂ (1992)

The Magic Nine

1. Price variability of the commodity;
2. a market where price is competitively determined;
3. homogeneity (or the close movement of prices of different grades of the commodity);
4. a pattern of forward contracting with significant deficiencies; unreliable or prohibitively expensive
5. the existence of a viable cash market (a market for immediate delivery) in order to facilitate delivery procedures or settlement to an index
6. Legislation, regulation
7. Exchange architecture that minimizes transaction costs (corporate model, platform, rulebook etc.)
8. Contract design (minimize per unit transaction costs)
9. Education (principals, agents, technology providers, lawyers, academics, students etc.)

Cost of Building a Market

Legislative

Regulatory

Exchange
Architecture

Contract
Design

Education

Examples of the Environmental “Magic 9”

Cap-and-Trade

- SO₂ allowances and futures to combat acid rain in the United States
- RGGI & California carbon markets
- RECs in New Jersey to stimulate the development of solar power
- CO₂ allowances in the EU-ETS to combat global warming
- Water rights in Australia to combat drought, and
- Fishing rights in Alaska to prevent overfishing.

Lessons Learned

Keep it simple: The perfect should not be the enemy of the good.

Simple does not mean Easy: Past programs facilitated building institutions that led to minimization of transaction costs in achieving these objectives.

Markets succeed when legislators and regulators are fully informed prior to launch

It's All About Price

- a) Price changes behavior
- b) Low price does not mean failure
- c) Leave the Price Alone

Policy can make or break a program

Flawed market architecture hinders success (e.g. RINs)

Gains from Trade – Cost / Benefit

Gains from trade can only occur if the costs do not exceed the benefits

Time & cost (10 years & \$30-50m)