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Why Do Some Futures Contracts Succeed & Others Fail?

PRMIA Webinar http://www.prmia.org

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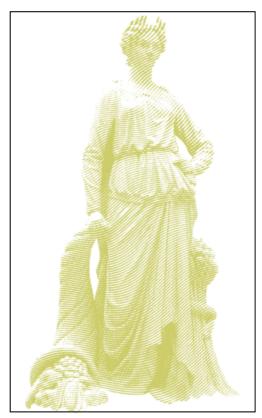
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Why Do Some Futures Contracts Succeed & Others Fail?*

- I. There Must Be a Commercial Need for Hedging
- II. A Pool of Speculators Must Be Attracted to a Market
- III. Public Policy Should Not Be Too Adverse
- IV. Case Studies: Pulp, Uranium, and Weather-Related Futures Contracts

Conclusion of Webinar



Icon above is based on the statue in the Chicago Board of Trade plaza.



Quick Poll Question

- 1. Does your firm use futures contracts to hedge risk?
 - a. Yes
 - b. No

I. Commercial Need for Hedging

A. New Contracts

- 1. Successful Contracts
- 2. Failed Contracts
- **B.** Existing Contracts
 - 1. Failed Contracts
 - 2. Successful Contracts

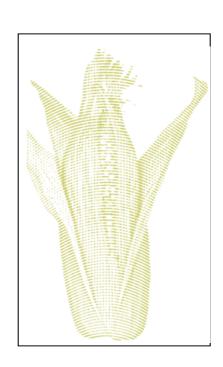


Source of Graphic: Chicago Board of Trade / CME Group.

I. A. 1. Successful New Contracts

a. New Kinds of Risks

- Chicago Became Large-Scale Grain Terminal in the Mid-1800s
- Collapse of Bretton Woods System Ushered in New Era of Financial Market Volatility
- Forced Shift to Spot Oil Market
- Gradual Deregulation of the U.S. Natural Gas Market



I. A. 1. Successful New Contracts

- b. New Ways to Hedge Existing Risks
 - Futures Contracts in the Soybean Complex
 - First Futures Contract on Non-Storable Commodity: Live Cattle Futures Contracts



• The Chicago Board Options Exchange

I. Commercial Need for Hedging

A. New Contracts

- 1. Successful Contracts
- 2. Failed Contracts

B. Existing Contracts

- 1. Failed Contracts
- 2. Successful Contracts



Source of Graphic: Chicago Board of Trade / CME Group.

I. A. 2. Failed New Contracts

- a. Risks Not Sufficiently Material
 - Currency Futures Launch Pre-Bretton Woods Breakdown
 - CPI Futures



Source of Graphic: Chicago Board of Trade / CME Group.

I. A. 2. Failed New Contracts

b. Redundancy

- U.S. Interest-Rate Futures Contracts (1970s and 1980s)
- Pacific Northwest Wheat Futures Contract (1950s)



Canadian Coin Futures Contract (1973)

I. Commercial Need for Hedging

A. New Contracts

- 1. Successful Contracts
- 2. Failed Contracts

B. Existing Contracts

- 1. Failed Contracts
- 2. Successful Contracts

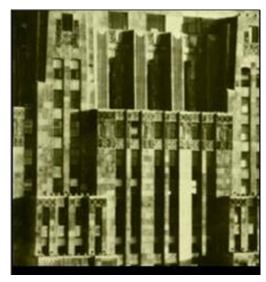


Source of Graphic: Chicago Board of Trade / CME Group.

I. B. 1. Failed Existing Contracts

a. Obsolescence

- Technological Changes: Butter and Eggs
- Risks Shifted to the Government: Cotton
- Risks Shifted to the Government: Butter



Source of Graphic: Chicago Board of Trade / CME Group.

I. B. 1. Failed Existing Contracts

- **b.** Terms Became Disadvantageous for Hedgers
 - Kansas Wheat Futures Contract (1953)
 - GNMA (Government National Mortgage Association) Futures Contract
 - Maine Potato Futures Contract
- c. Perishable Nature of Commodity
 Market Made Physically-Delivered
 Futures Contract Vulnerable to
 Manipulation
 - Maine Potato Futures Contract

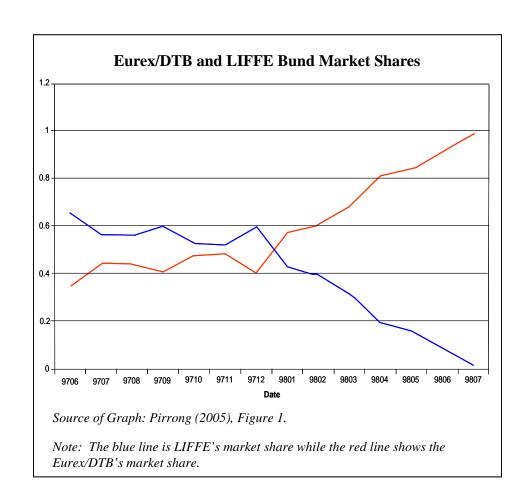


I. B. 1. Failed Existing Contracts

d. Competition

Example:

LIFFE Bund Contract



I. Commercial Need for Hedging

A. New Contracts

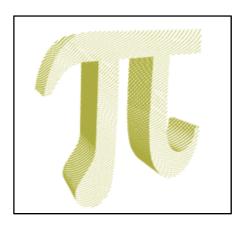
- 1. Successful Contracts
- 2. Failed Contracts
- **B.** Existing Contracts
 - 1. Failed Contracts
 - 2. Successful Contracts



Source of Graphic: Chicago Board of Trade / CME Group.

I. B. 2. Successful Existing Contracts

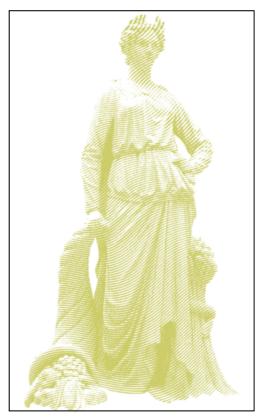
- a. NYMEX WTI vs. ICE WTI
- b. Chicago Exchanges



Why Do Some Futures Contracts Succeed & Others Fail?

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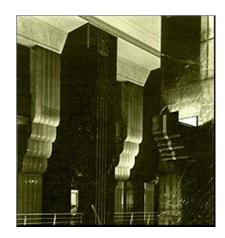


Quick Poll Question

- 2. Which best describes your role?
 - a. Practitioner
 - b. Academic

II. Attracting Speculators

- A. Community of Risk-Takers
- **B.** Level Playing Field for Speculators
- C. Ability to Actually Manage Risk



Source of Graphic: Chicago Board of Trade / CME Group.

II. A. Community of Risk-Takers

- 1. Chicago as a Case Study
- 2. Other Financial Centers
- 3. Practical Approach
- 4. Willingness to Risk Failure



Source of Graphic: Wilmott Magazine cover of Jan/Feb 2007.

II. A. 1. Chicago as a Case Study*

- a. Mid-Nineteenth Century
- **b.** 1970s
- c. Present Day



II. A. Community of Risk-Takers

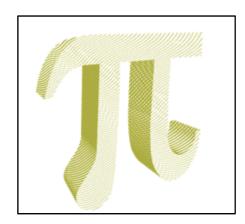
- 1. Chicago as a Case Study
- 2. Other Financial Centers
- 3. Practical Approach
- 4. Willingness to Risk Failure



Source of Graphic: Wilmott Magazine cover of Jan/Feb 2007.

II. A. 2. Other Financial Centers

- a. Kansas City Board of Trade
- b. Sydney Futures Exchange
- c. New York Mercantile Exchange



II. A. Community of Risk-Takers

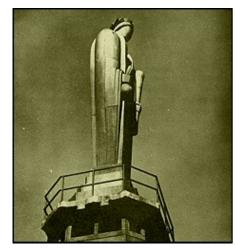
- 1. Chicago as a Case Study
- 2. Other Financial Centers
- 3. Practical Approach
- 4. Willingness to Risk Failure



Source of Graphic: Wilmott Magazine cover of Jan/Feb 2007.

II. A. 3. Practical Approach

- a. Pioneering Businessmen
- b. New Commodity Products in the 1960s
- c. Present Day



Source of Graphic: Chicago Board of Trade / CME Group.

II. A. Community of Risk-Takers

- 1. Chicago as a Case Study
- 2. Other Financial Centers
- 3. Practical Approach
- 4. Willingness to Risk Failure

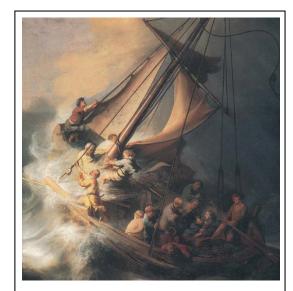


Source of Graphic: Wilmott Magazine cover of Jan/Feb 2007.

II. A. 4. Willingness to Risk Failure

Harris (1970) noted that an enduring philosophy of the CME has been an acceptance of the possibility of failure in its new product ventures:

"Necessity is the mother of invention. Beginning in the early fifties ... [CME] members have vigorously researched, tested, and promoted many new contracts for futures trading. ...

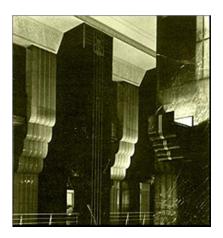


Rembrandt's Storm on the Sea of Galilee, Isabella Stewart Gardner Museum, Boston, and Cover of <u>Against the Gods: The</u> <u>Remarkable Story of Risk</u> by Peter Bernstein, John Wiley & Sons, 1996.

Some have succeeded and some have failed,
but fear of failure has not impeded progress," concluded Harris.

II. Attracting Speculators

- A. Community of Risk-Takers
- **B.** Level Playing Field for Speculators
- C. Ability to Actually Manage Risk



Source of Graphic: Chicago Board of Trade / CME Group.

II. B. Level Playing Field for Speculators

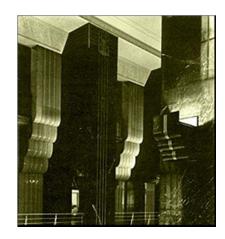
- 1. Grains
- 2. Equities



Source of Graphic: Chicago Board of Trade / CME Group.

II. Attracting Speculators

- A. Community of Risk-Takers
- **B.** Level Playing Field for Speculators
- C. Ability to Actually Manage Risk



Source of Graphic: Chicago Board of Trade / CME Group.

II. C. Ability to Manage Risk

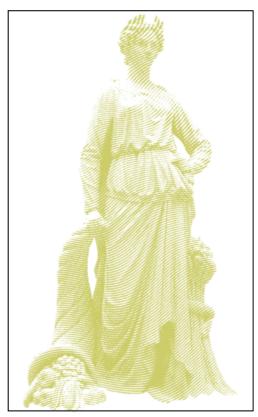
- 1. How Speculators Manage Risk*
- 2. Example: CPI Futures



Why Do Some Futures Contracts Succeed & Others Fail?

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Conclusion of Webinar



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Quick Poll Question

- 3. Is the regulatory environment for futures markets a concern at your firm?
 - a. Yes
 - b. No

III. Public Policy

A. Convincing Economic Rationale

- 1. If Unconvincing, Contracts are at Risk to Being Banned or Heavily Curtailed
- 2. Role of Academics and Empirical Studies in the Debate



Source of Graphic: Chicago Board of Trade / CME Group.

III. Public Policy

- B. Helpful if Contracts are Viewed as Being in the National Interest
- C. Regulatory Parity Across Financial Centers
- D. If Regulatory Interventions, Should Not Be Too Draconian

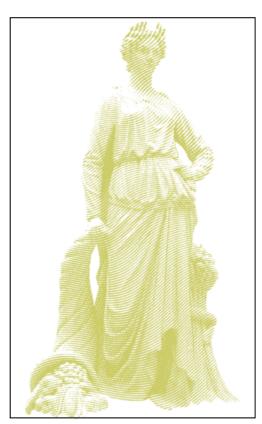


Milton Friedman, (1912-2006), Nobel-Prize-Winning Economist

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Quick Poll Question

- 4. Which type of futures contract would your institution likely use?
 - a. Financial Futures
 - b. Commodity Futures
 - c. Both
 - d. None

IV. Case Studies

- A. Pulp
- B. Uranium
- C. Weather Derivatives

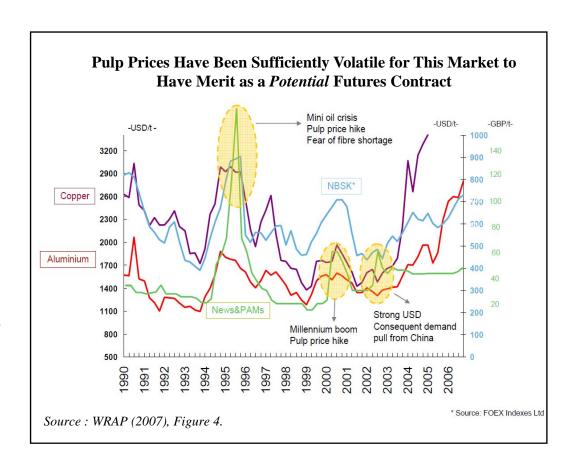


Source of Graphic: Chicago Board of Trade / CME Group.

IV. A. Pulp*

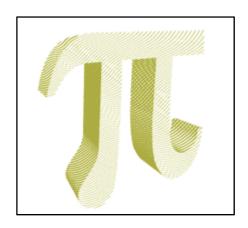
- 1. Individual Attempts at Launching Pulp Futures Contracts
- 2. How the Pulp
 Markets Do Not
 Match Up Against the
 Various Criteria for
 the Successful Launch
 of a Futures Contract

3. Conclusion



IV. A. 1. Failed Individual Attempts

- a. Montreal Exchange
- b. Merrill Lynch
- c. FOEX
- d. PULPEX
- e. NYBOT
- f. CME Group



IV. A. 2. How the Pulp Markets Fail to Match Up Against Necessary Criteria

- a. A prior pattern of forward contracting has not broken down;
- b. There has been insufficient net hedging demand; and



Source of Graphic: Chicago Board of Trade / CME Group.

c. The industrial organization of the pulp industry has not been conducive to the success of a futures market.

IV. A. 3. Conclusion (Pulp)

The common theme with each of the points on the preceding slide is that it appears that the pulp industry has not been in need of pricerisk-bearing intermediaries, whom, in turn, can provide this service on futures exchanges.

IV. Case Studies

- A. Pulp
- B. Uranium
- C. Weather Derivatives



Source of Graphic: Chicago Board of Trade / CME Group.

IV. B. Uranium*

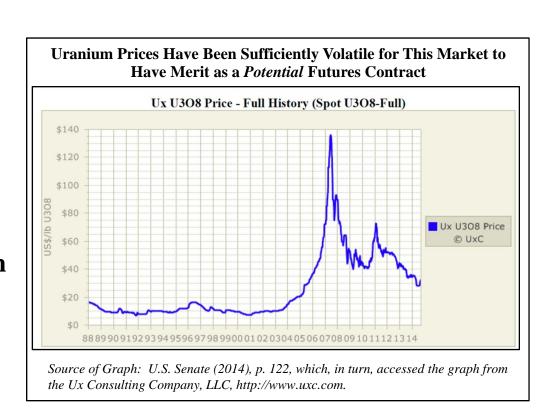
How the Uranium Market Does Not Sufficiently Match Up Against the Criteria for the Successful Launch of a Futures Contract

- 1. There Should be Sufficient Volatility [Criterion Met]
- 2. There Should be Fragmented Marketing Chains [Criterion Not Met]
- 3. There Should be a Level Playing Field Amongst Participants
 [Criterion Not Met]

IV. B. Uranium

4. Conclusion

While uranium prices
have been sufficiently
volatile to merit a futures
contract, it appears that
the industrial organization
of the uranium industry
has not been conducive to
the success of a futures
contract.



IV. Case Studies

- A. Pulp
- B. Uranium
- **C.** Weather Derivatives



Source of Graphic: Chicago Board of Trade / CME Group.

- 1. History of Weather Derivatives Contracts
 - a. First Contract
 - **b.** Futures Contracts
 - c. Over-the-Counter Contracts
- 2. Description of Weather Derivatives Contracts



3. Customized Over-the-Counter Weather Derivatives Contracts

Via Reinsurers

- a. The Role of Reinsurers
- b. Example



In 2010, "Barney Schauble ... [was] a managing ... [principal] of Bermuda-based Nephila Capital, a leading investment manager specializing in the reinsurance industry[. The firm has] invest[ed] in insurance-linked securities, catastrophe bonds, insurance swaps, and weather derivatives." The firm had slightly under \$2.5 billion in assets under management at the time of the Opalesque TV interview; and by 2014, the firm's assets had grown to \$10 billion.

Source of Content: Opalesque TV (2010).

- 4. Futures Contracts: Not as Successful a Method of Risk Transfer
 - a. A Small Proportion of the Overall Market
 - a. A Unique Pricing Problem



Source of Graphic: Chicago Board of Trade / CME Group.

- 5. How Weather Exposures Do Not Sufficiently Match Up Against the Criteria for the Successful Launch of a Futures Contract
 - a. Level Playing Field for Speculators [Criterion Met]
 - b. Speculators Able to Manage the Risk of Positions from Hedgers [Criterion Not Sufficiently Met]
 - c. The Commodity is Relatively Homogenous [Criterion Not Met]

6. Conclusion

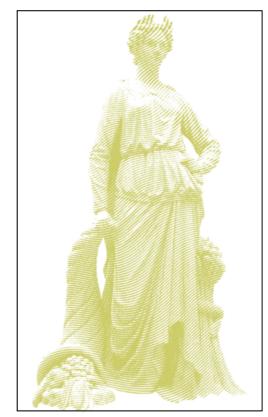
Even though the potential size of the weather-derivatives markets is large, it is likely that the specialized institutions, which are most equipped for managing weather risk, are outside the futures markets.

Instead, it may be that reinsurance companies and funds, using customized OTC derivatives, may be the most suited for taking on and managing weather risk.

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Conclusion of Webinar



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Conclusion of Webinar

Futures trading can be seen as a game where the competing players, the hedgers and the speculators, each have sufficient economic reasons to participate.

The referee of this game, the governmental authorities, have the power to stop the game,



if there is not a convincing economic rationale for a futures contract's existence.

Conclusion of Webinar

Therefore, a futures contract can succeed only if it responds to a commercial hedging need, *and* if speculators are able to manage the risk of taking on the hedger's positions.

In addition, a convincing case must be made that the contract serves an economic purpose; otherwise the contract is at risk to either being banned or heavily curtailed.



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For an article on the historical parallels between 1873 and now, as seen when looking into the distant mirror of Degas' painting, please see: Till, H., 2011, "Cotton Through a Distant Mirror," Commodities Now,

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Additional articles by the presenter can be accessed here:

http://faculty-research.edhec.com/faculty-researchers/alphabetical-list/r-s-t/till-hilary-143898.kjsp?RH=faculty-gb1

Presentation Prepared By Katherine Farren, CAIA, Premia Risk Consultancy, Inc.



Intelligent Commodity Investing



"Essential reading for commodity investors, or would-be investors everywhere."
Sir Howard Davies, (Current) Chairman of the International Advisory Council of the China Securities Regulatory Commission; (Former) Director of the London School of Economics (2003-2011); and (Inaugural) Chairman of the U.K. Financial Services Authority (1997-2003).

Hilary Till

Hilary Till is a co-founder of Chicago-based Premia Capital Management, LLC, a proprietary trading firm, http://www.premiacap.com. She is also a principal of Premia Risk Consultancy, Inc., which advises investment firms on risk-management policy. Prior to Premia Capital, Ms. Till was the Chief of Derivatives Strategies at Putnam Investments, and a Quantitative Analyst at the Harvard Management Company. In addition, Ms. Till is the co-editor of "Intelligent Commodity Investing," http://www.riskbooks.com/intelligent-commodity-investing, a bestseller for Risk Books, a London publisher.

Ms. Till has presented her analysis of the commodity futures markets to the following institutions: the U.S. Commodity Futures Trading Commission, the International Energy Agency, and to (then) U.K. Financial Services Authority.

She presently serves on the North American Advisory Board of the London School of Economics; is a member of the newly formed Research Council within the J.P. Morgan Center for Commodities at the University of Colorado-Denver Business School; and is a Research Associate at the EDHEC-Risk Institute, http://www.edhec-risk.com, in Nice, France.

In Chicago, Ms. Till is a member of the Federal Reserve Bank of Chicago's Working Group on Financial Markets; is an Advisory Board Member of DePaul University's Arditti Center for Risk Management; and has provided seminars to staff from the Shanghai Futures Exchange and the China Financial Futures Exchange. In addition, she serves on the steering committees for the Chicago chapters of both the **Professional Risk Managers' International Association (PRMIA)** and the Chartered Alternative Investment Analyst Association (CAIA).

She has a B.A. with General Honors in Statistics from the University of Chicago and an M.Sc. degree in Statistics from the London School of Economics (LSE). Ms. Till studied at the LSE under a private fellowship administered by the Fulbright Commission.





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