

“Why Some Futures Markets Thrive and Others Die”



NCCC-134 Conference, Illini Center, Chicago

on

**Applied Commodity Price Analysis, Forecasting, and Market Risk Management
Research**

April 21, 2026

Hilary Till * Premia Research LLC (U.S.) & Bayes Business School (U.K.)

<https://www.bayes-cid.com/hilary-till>



Why Some Futures Markets Thrive and Others Die*

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

* This presentation is based on Till (2025).



I. Commercial Need for Hedging

A. New Contracts

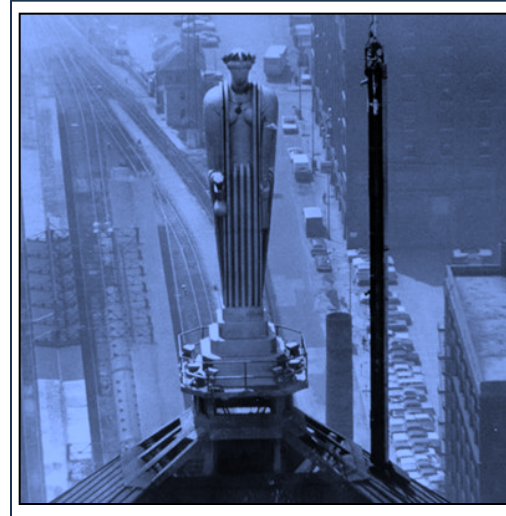
1. Successful Contracts

2. Failed Contracts

B. Existing Contracts

1. Failed Contracts

2. Successful Contracts



I. A. 1. Successful New Contracts

a. New Kinds of Risks

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



I. A. 1. Successful New Contracts

- a. i. **Chicago Became a Large-Scale Grain Terminal in the Mid-1800s, Driving Merchants to Create the CBOT**

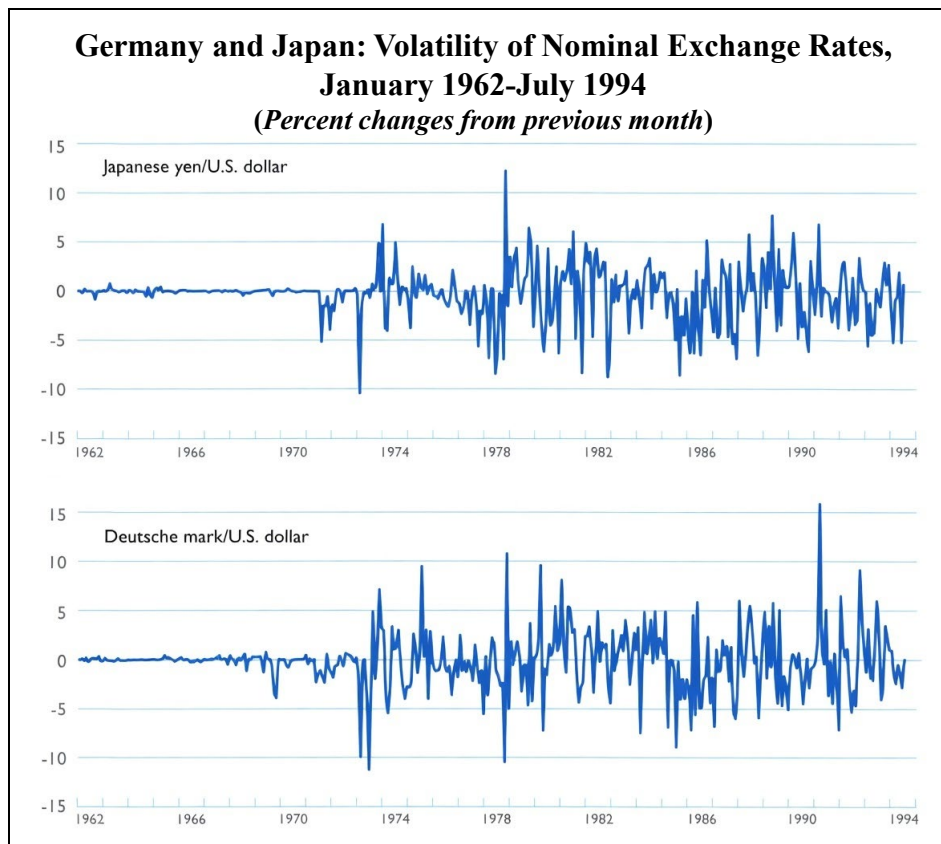


Colorized photograph of the old Chicago Board of Trade building (completed: 1885 and demolished: 1929).

The CBOT progressively evolved from commercial arbitration and spot trading to a member-owned exchange with standardized futures contracts.

I. A. 1. Successful New Contracts

a. ii. Bretton Woods' Collapse Sparked the Need for Currency Risk Management



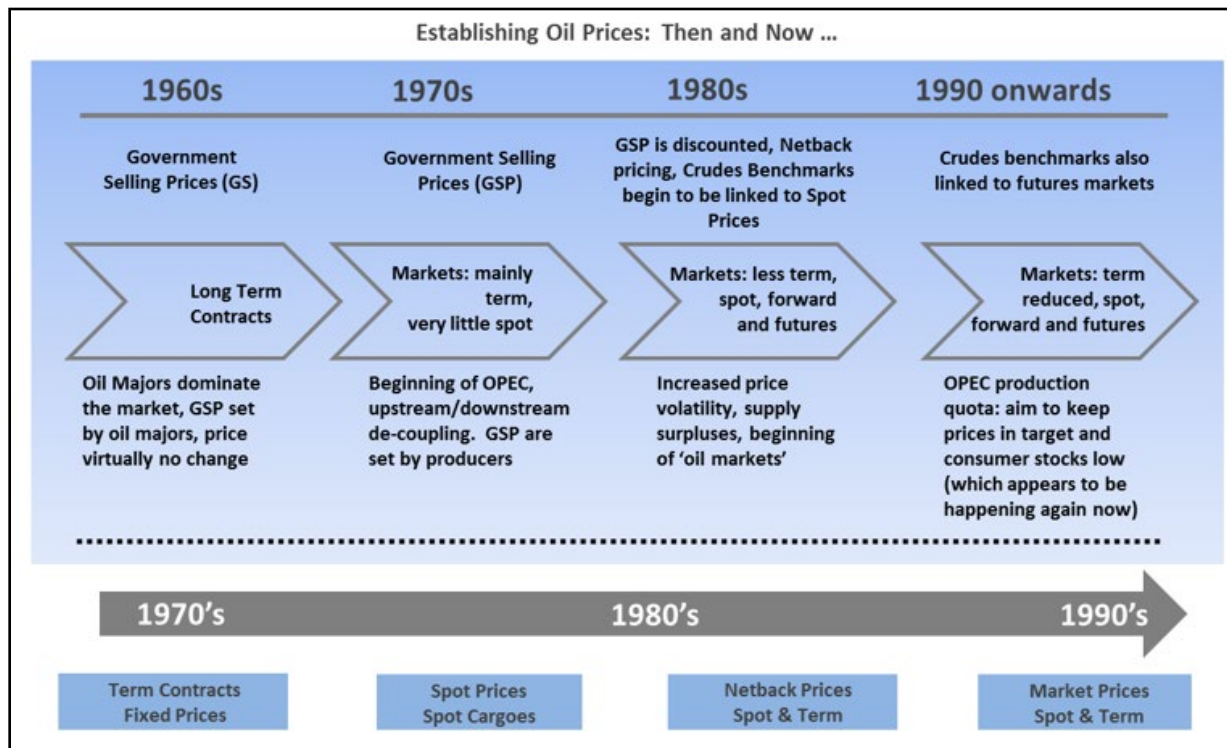
The Chicago futures exchanges developed innovative hedging instruments in currencies (and later, interest rates, and equity indexes), despite early skepticism that commodity traders could successfully expand into financial futures.

Source: Melamed (1994).



I. A. 1. Successful New Contracts

a. iii. The Forced Shift to Spot Oil Markets, Leading to Economic Need for Hedging



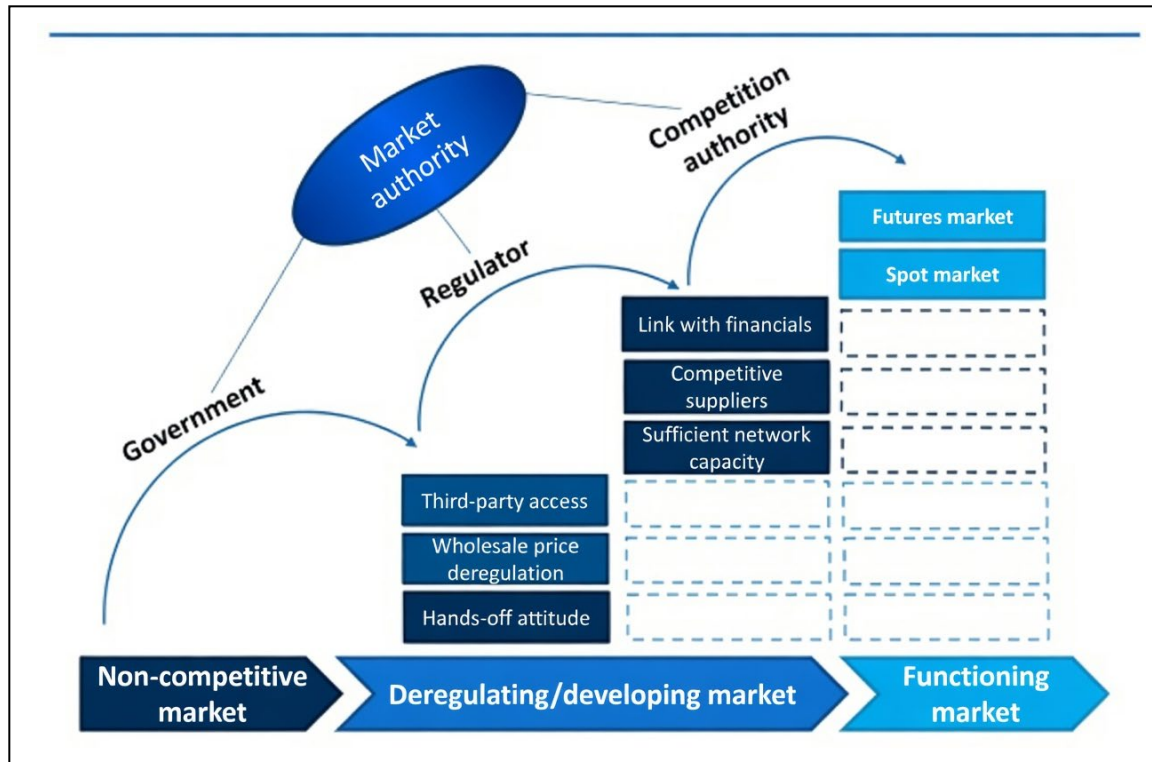
“The whole framework for commodities changes rapidly. Sometimes more rapidly than [what] you [would] think.”

Source: Edward Morse in CFTC Talks (2017).



I. A. 1. Successful New Contracts

a. iv. The Gradual Deregulation of the U.S. Natural Gas Market, Setting up Need for Forward Hedging



Exchange-traded futures can effectively replace regulation “in providing manageable stability in commodity prices.”

Source: Johnson (2002).

I. A. 1. Successful New Contracts

b. New Ways to Hedge Existing Risks

- After Slumping Trade in Then Traditional Contracts:
Launch of Futures Contracts in the Soybean Complex**
- A Commodity Need Not be Storable:
Introduction of Live Cattle Futures Contracts**
- Using “the Power of Mathematics to Conquer Risk”*:
Establishment of the Chicago Board Options Exchange**

** Source: BBC2 (1999).*



I. Commercial Need for Hedging

A. New Contracts

1. Successful Contracts

2. Failed Contracts

B. Existing Contracts

1. Failed Contracts

2. Successful Contracts



I. A. 2. Failed New Contracts

- a. Risks Not Sufficiently Material**
 - i. Currency Futures Launch Pre-Bretton Woods Breakdown**
 - ii. CPI Futures**
 - iii. Uranium**
- b. Redundancy**
 - i. Pacific Northwest Wheat Futures Contract**
 - ii. Notable Exceptions: Hedging “Transformation Activities”**
- c. Vertical Integration**
 - i. Broilers**
 - ii. Pulp**
 - iii. Consequences for New Markets**



I. A. 2. Failed New Contracts

a. Risks Not Sufficiently Material

i. Currency Futures Launch Pre-Bretton Woods Breakdown

- **The Bretton Woods fixed exchange-rate system had eliminated the volatility needed for a futures market to thrive.**

ii. CPI Futures

- **By the time these contracts were launched, inflation had subsided, eliminating the need for a hedging vehicle. (Also, speculators may have also had risk-management challenges.)**

iii. Uranium

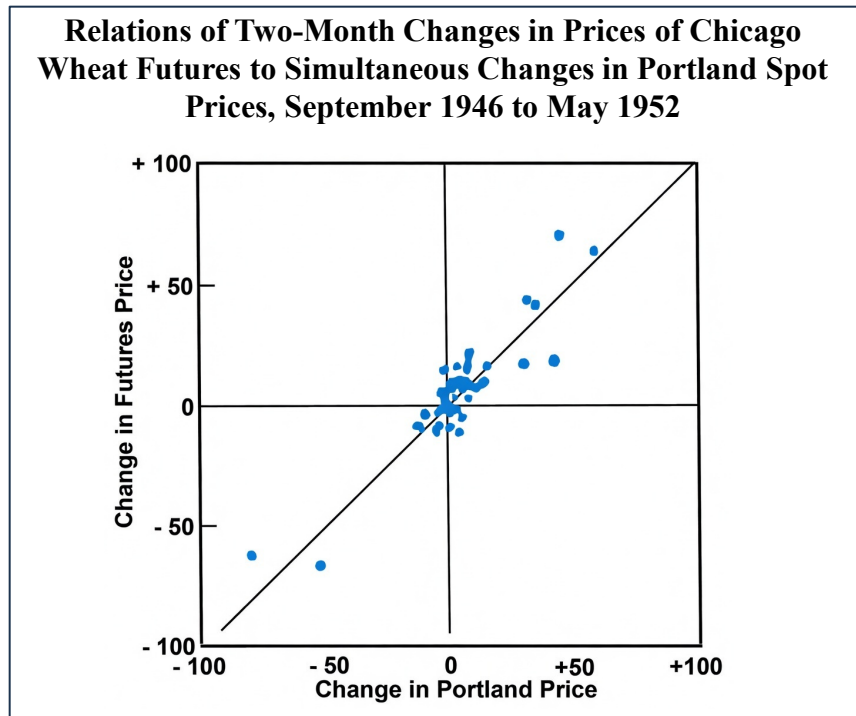
- **Recently over 90% of uranium delivered was purchased under long-term contracts, lessening the need for futures contracts.**



I. A. 2. Failed New Contracts

b. Redundancy

i. Pacific Northwest Wheat Futures Contract

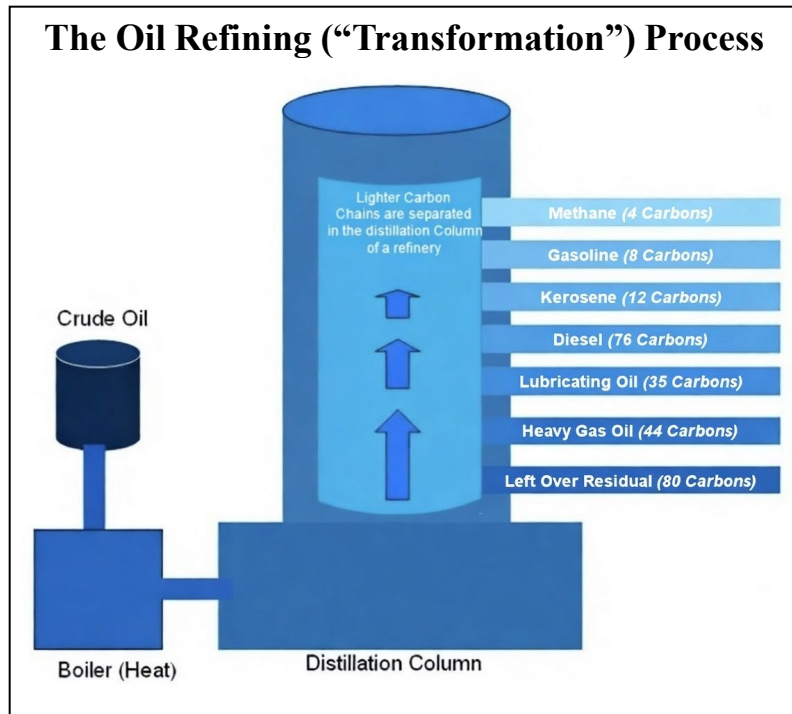


Chicago wheat futures prices exhibited extreme changes when the Portland wheat spot price also exhibited extreme changes, which meant that the Chicago contract already provided protection against serious, crippling loss.

I. A. 2. Failed New Contracts

b. Redundancy

ii. Notable Exceptions: Hedging “Transformation Activities”



Futures contracts can not only hedge inventory risk but can also be employed to hedge “transformation activities.”

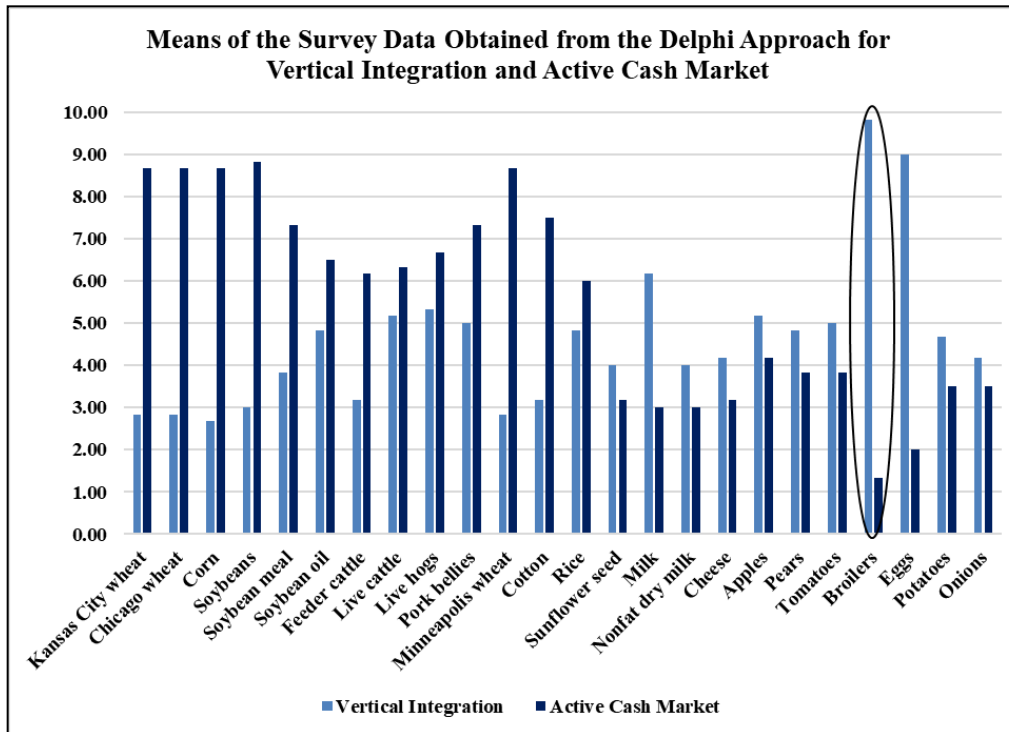
So highly correlated contracts in (for example) the petroleum complex and the soybean complex can flourish because of their use in margin hedging.

Source: Rausser and Bryant (2004).

I. A. 2. Failed New Contracts

c. Vertical Integration

i. Broilers



The broiler chicken market is highly vertically integrated, which creates a “natural hedge” that physically balances supply and demand risks within companies, thus eliminating the need for financial hedging.

Source of data for graphic: Brorsen and Fofana (2001), Table 3.



I. A. 2. Failed New Contracts

c. Vertical Integration

ii. Pulp

- **Pulp markets in the U.S. and Europe are highly vertically integrated, with little room for the trading intermediaries common in grain or oil.**

iii. Consequences for New Markets

- **A GPU futures market seems unlikely to flourish, given short marketing chains, the high concentration among both suppliers and buyers, and the probability that long-term contracts or vertical integration will crowd out futures trading.**



I. Commercial Need for Hedging

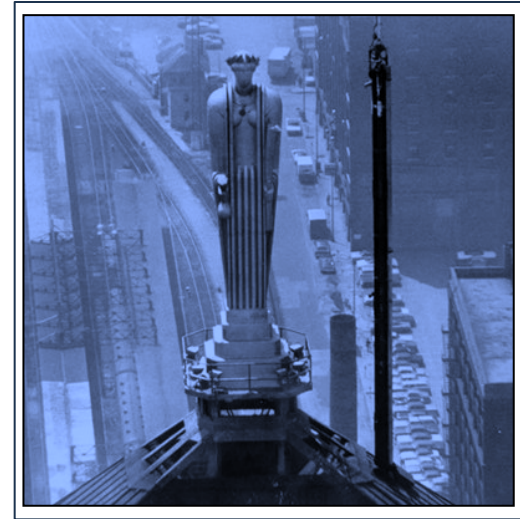
A. New Contracts

1. Successful Contracts
2. Failed Contracts

B. Existing Contracts

1. Failed Contracts

2. Successful Contracts



I. B. 1. Failed Existing Contracts

- a. Obsolescence – Permanent or Temporary**
- b. Terms Became Disadvantageous to Hedgers**
- c. Competition**



I. B. 1. Failed Existing Contracts

a. Obsolescence – Permanent or Temporary

i. Eggs

ii. Butter

iii. Cotton



I. B. 1. Failed Existing Contracts

a. Obsolescence – Permanent or Temporary

i. Eggs

- **Technological changes had transformed storage eggs from seasonally produced commodities into essentially new products, greatly diminishing the economic necessity of futures hedging.**

ii. Butter

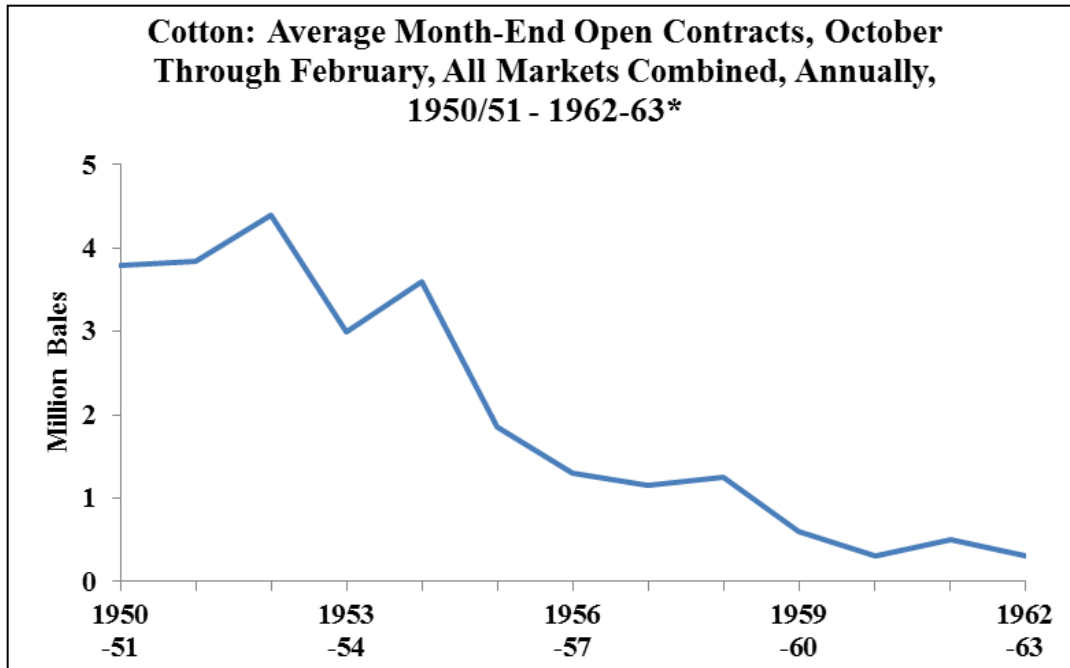
- **In the past, government acquisition of butter stocks eliminated the need for private inventory-holding, undercutting the rationale for futures hedging.**



I. B. 1. Failed Existing Contracts

a. Obsolescence – Permanent or Temporary

iii. Cotton



Essentially, the U.S. government took on the role of a cotton merchant and bore the risk of holding inventories, rendering the futures market superfluous.

I. B. 1. Failed Existing Contracts

b. Terms Became Disadvantageous for Hedgers

i. Kansas Wheat Futures Contract (1953)

**ii. GNMA (Government National Mortgage Association)
Futures Contract**

iii. Maine Potato Futures Contract



I. B. 1. Failed Existing Contracts

b. Terms Became Disadvantageous for Hedgers

i. Kansas Wheat Futures Contract (1953)

- **When soft red wheat prices fell in 1953, Kansas City's cheapest to-deliver grade of wheat changed. The exchange rejected the petition of commercials to change the delivery terms, triggering a collapse in open interest.**

ii. GNMA (Government National Mortgage Association) Futures Contract

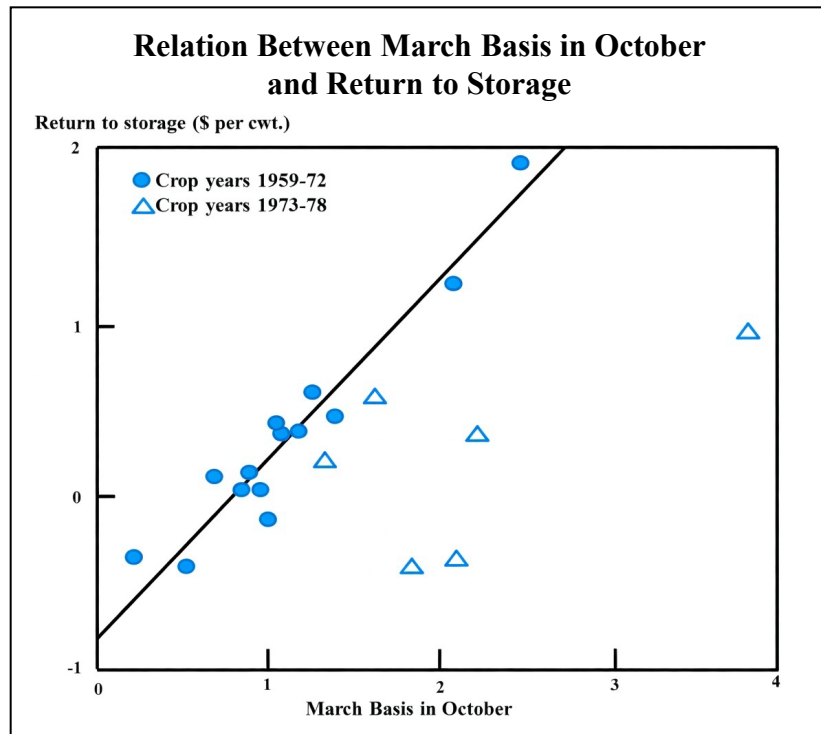
- **The contract began pricing off high-coupon GNMA's that behaved like short-term securities, destroying its usefulness as a hedge for mortgage market participants.**



I. B. 1. Failed Existing Contracts

b. Terms Became Disadvantageous for Hedgers

iii. Maine Potato Futures Contract



Note: "cwt" stands for 100-pounds

When the cost of making acceptable delivery rose, cash and futures prices stopped converging at expiration, making hedges increasingly unreliable.

Sources: Paul et al. (1981) and U.S. Senate (2009).

Source of Graphic: Paul et al. (1981), Figure 11.



I. B. 1. Failed Existing Contracts

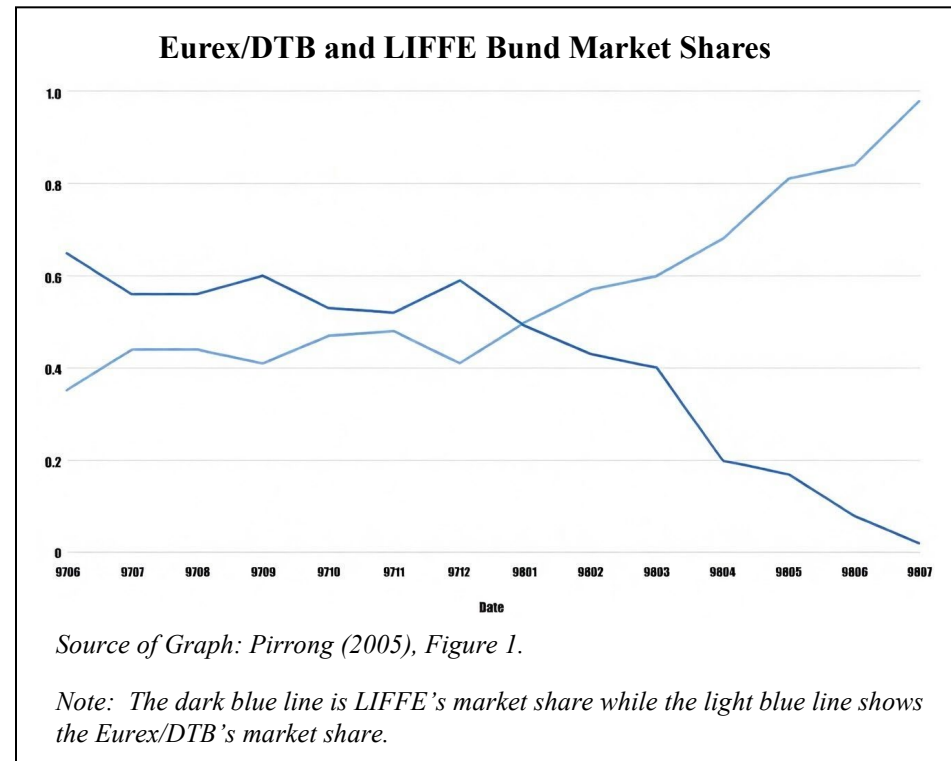
c. Competition

Example:

LIFFE Bund Contract

German bank patronage allowed Eurex to close the liquidity gap with LIFFE on Bund futures, and a timely fee cut tipped volume its way. LIFFE's three-month delay in responding proved fatal.

Sources: Pirrong (2005) and Pirrong (2006).



I. Commercial Need for Hedging

A. New Contracts

1. Successful Contracts
2. Failed Contracts

B. Existing Contracts

1. Failed Contracts

2. Successful Contracts



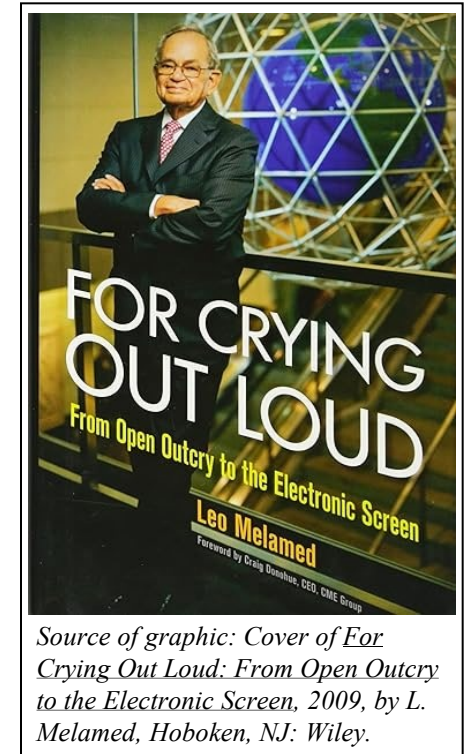
I. B. 2. Successful Existing Contracts

a. Chicago Exchanges

- Spurred by EUREX's defeat of LIFFE, CME adopted electronic trading, went public in 2002, and absorbed CBOT (2007) and NYMEX (2008) to form the CME Group.

b. NYMEX WTI vs. ICE WTI

- When ICE's electronic WTI contract grabbed 35% market share in 2006, NYMEX went electronic on Globex to survive.



Source of graphic: Cover of *For Crying Out Loud: From Open Outcry to the Electronic Screen*, 2009, by L. Melamed, Hoboken, NJ: Wiley.

Why Some Futures Markets Thrive and Others Die

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

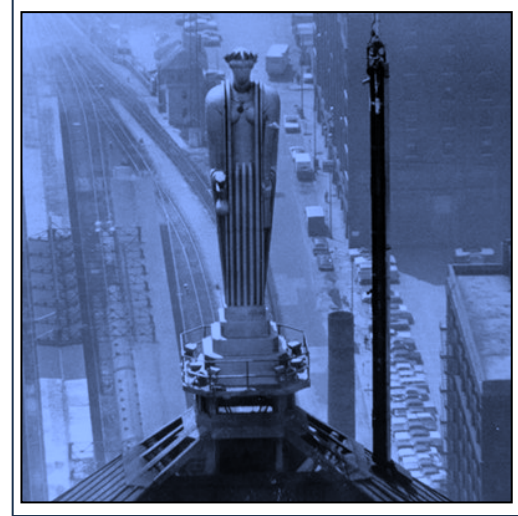


II. Attracting Speculators

A. Community of Risk-Takers

B. Level Playing Field for Speculators

C. Ability to Manage Risk



II. A. Community of Risk-Takers

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



II. A. 1. Chicago as a Case Study

a. Mid-Nineteenth Century

- **Chicago's deep culture of financial risk-taking, rooted in 1830s land speculation, eventually gave rise to the CBOT, which was founded by merchants seeking order amid chaos. The exchange eventually attracted speculators from all walks of life to trade commodity futures.**

b. 1970s

- **Chicago's risk-taking culture and University of Chicago quants gave the CBOE a unique edge. Traders were already using Black-Scholes before it was published.**

c. Present Day

- **A handful of people at Chicago's proprietary firms routinely trade staggering volumes found nowhere else in the world.**



II. A. Community of Risk-Takers

1. Chicago as a Case Study

2. Other Financial Centers

3. Practical Approach

4. Willingness to Risk Failure



II. A. 2. Other Financial Centers

- **Successful futures contracts require a deep pool of experienced risk-takers.**
- **Despite early innovations elsewhere (*e.g.*, Kansas City's Value Line futures contracts and Sydney's first cash-settled currency futures contracts), financial futures ultimately thrived in Chicago, which had by far the largest concentration of seasoned traders.**
- **NYMEX reinvented itself after near-extinction from 1970s potato futures scandals by pivoting to petroleum and later natural gas futures, establishing itself as a major U.S. futures innovation center alongside Chicago.**



II. A. Community of Risk-Takers

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



II. A. 3. Practical Approach

a. Pioneering Businessmen in mid-19th Century

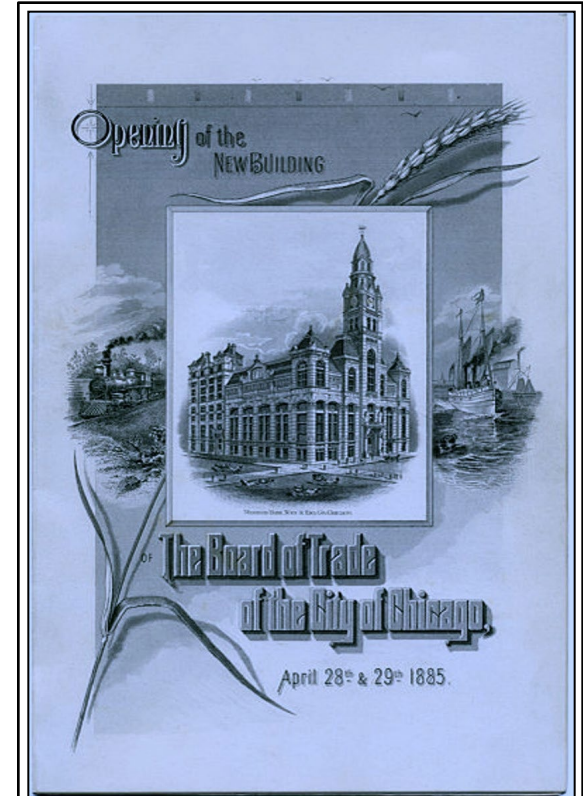
- They seized the most direct methods to facilitate business, unconstrained by tradition.

b. New Commodity Products in the 1960s

- One CBOT trader recalled: “We weren’t out to create a whole new world. We just wanted a little pit in the corner of the trading room.”

c. Present Day

- The present-day innovators are arguably the algorithmic electronic trading firms with lightning-fast execution.



Source of graphic: Based on an invitation to the opening of the “new” CBOT building, April 28-29, 1885.

II. A. Community of Risk-Takers

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



II. A. 4. Willingness to Risk Failure

1. Tolerating Uncertainty

- **Trading is not intellectual: it is a brutal test of emotional endurance that most people cannot bear.**

2. Accepting Possibility of Failure

- **The CME's long-standing culture of accepting failure drove bold experimentation in new futures products, with progress never hindered by fear of failure.**



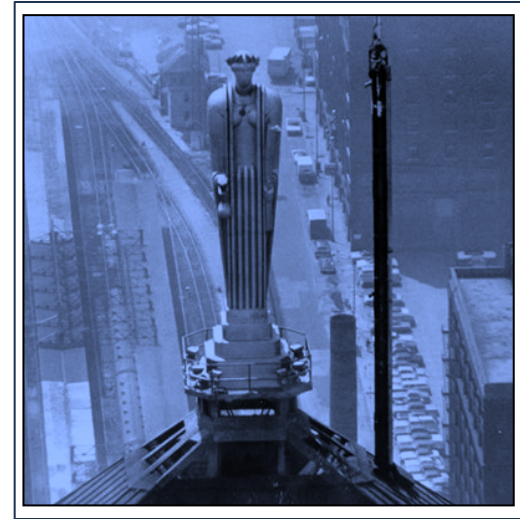
Rembrandt's Storm on the Sea of Galilee, 1633, Isabella Stewart Gardner Museum, Boston.

II. Attracting Speculators

A. Community of Risk-Takers

B. Level Playing Field for Speculators

C. Ability to Manage Risk



II. B. Level Playing Field for Speculators

1. Grains

- **In grain futures, price uncertainty is supply-driven, ensuring that speculators and hedgers on an equal informational footing.**

2. Equities

- **Equity index futures thrive partly because trading baskets of stocks reduces the risk of being on the wrong side of informed (insider) trading, making market-making more viable.**



II. Attracting Speculators

A. Community of Risk-Takers

B. Level Playing Field for Speculators

C. Ability to Manage Risk



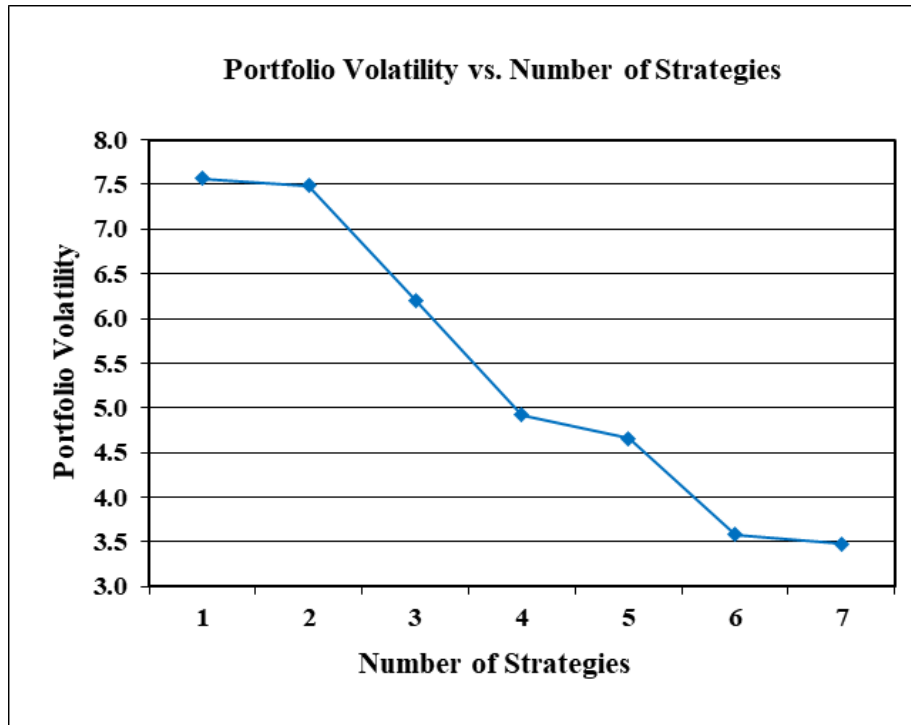
II. C. Ability to Manage Risk

- 1. How Speculators Manage Risk**
- 2. Lithium Futures**
- 3. Counterexample: CPI Futures**



II. C. Ability to Manage Risk

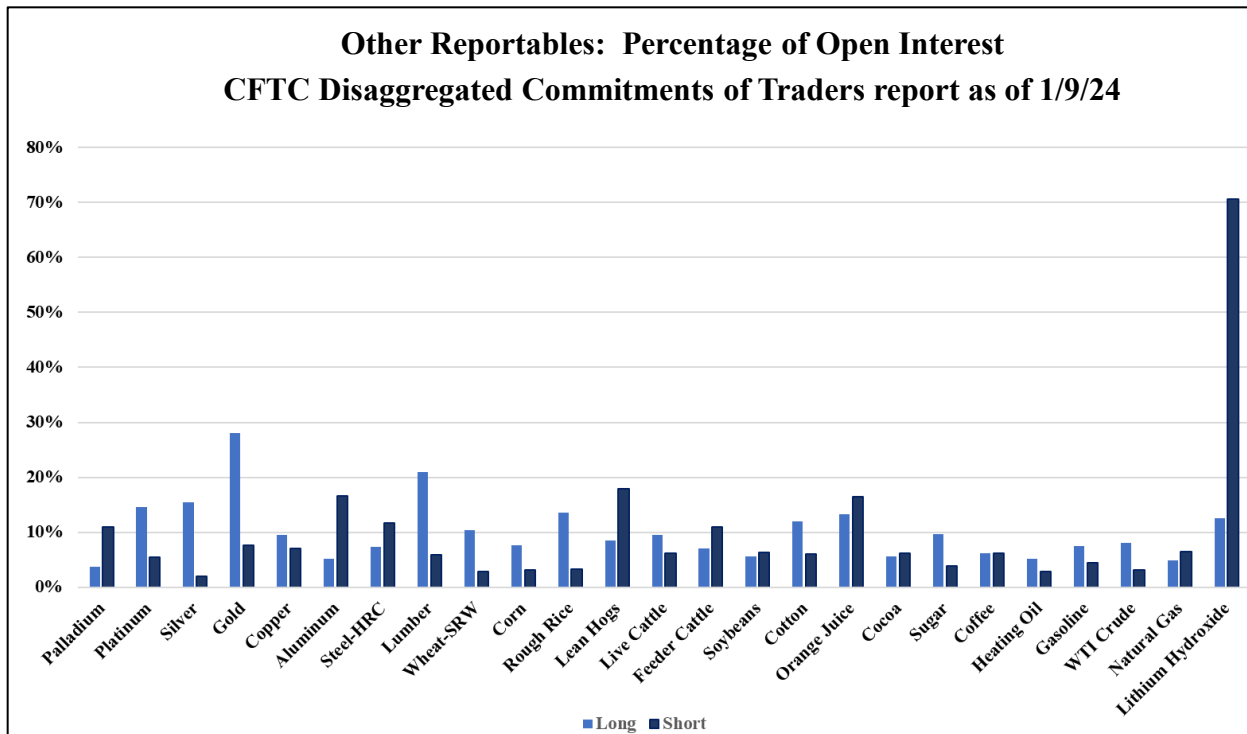
1. How Speculators Manage Risk



Speculators manage the risk of taking on the other side of commercial hedger positions through various strategies such as (a) spreading across maturities or related commodities or (b) diversifying across unrelated trades.

II. C. Ability to Manage Risk

2. Lithium Futures



CME’s Lithium Hydroxide contract evidently gained traction not due to producer hedging but via relative-value trading against the GFEX (China) contract.

The unusually large “Other Reportables” position in Lithium Hydroxide is evidently due to funds shorting the CME contract while going long the GFEX contract.

Source of graphic: Till (2024), Figure 5.



II. C. Ability to Manage Risk

3. Counterexample: CPI Futures

- **The provision of liquidity by speculators is essential to futures contract success.**
- **This liquidity is often supplied via spread trading against related markets. No such spreading vehicle existed for CPI futures, which, in turn, collapsed in the 1980s.**
- **The lack of an active cash market can also make it difficult to manage the risk of taking on a futures position.**



Why Some Futures Markets Thrive and Others Die

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



III. Public Policy

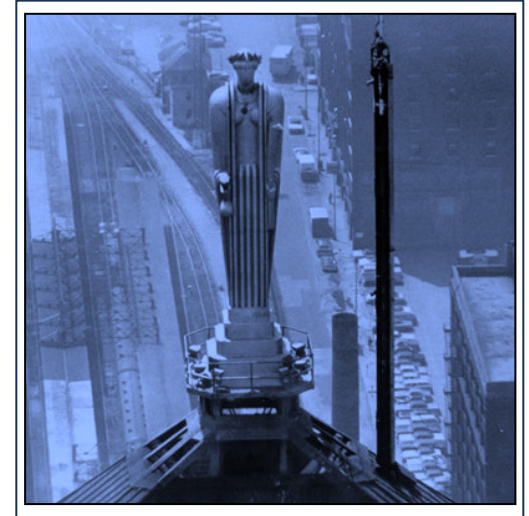
A. Need a Convincing Economic Rationale

B. Necessity of Price-Manipulation Regulation

C. Contracts Viewed as in National Interest

D. Regulatory Parity Across Financial Centers

E. Regulatory Interventions Should Not Be Too Draconian



III. A. Need a Convincing Economic Rationale

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



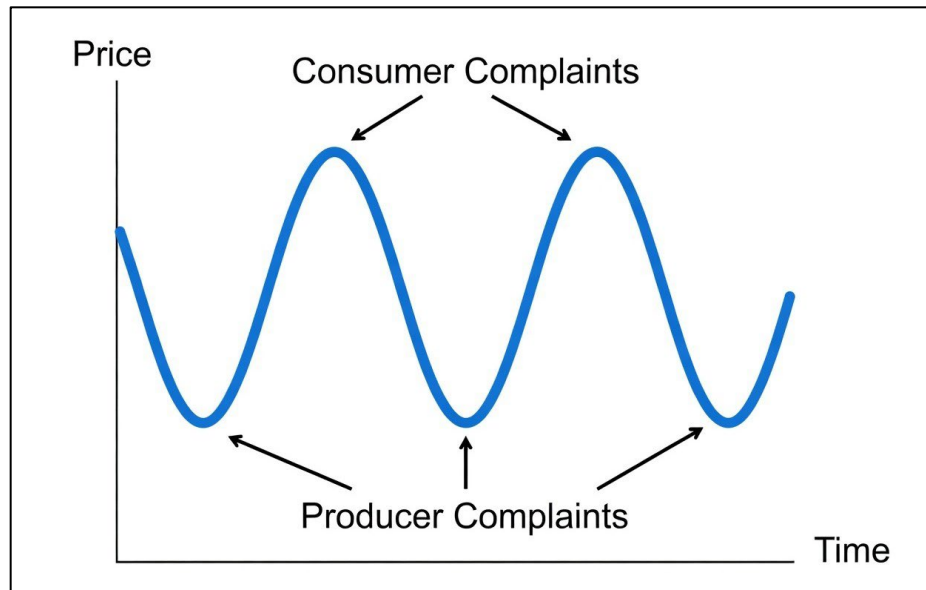
III. A. Need a Convincing Economic Rationale

1. If Unconvincing Rationale, Contracts are at Risk to Being Banned or Heavily Curtailed During Anti-Speculation Pendulum Swings

a. **Berlin Grain
Futures
(Late 1890s)**

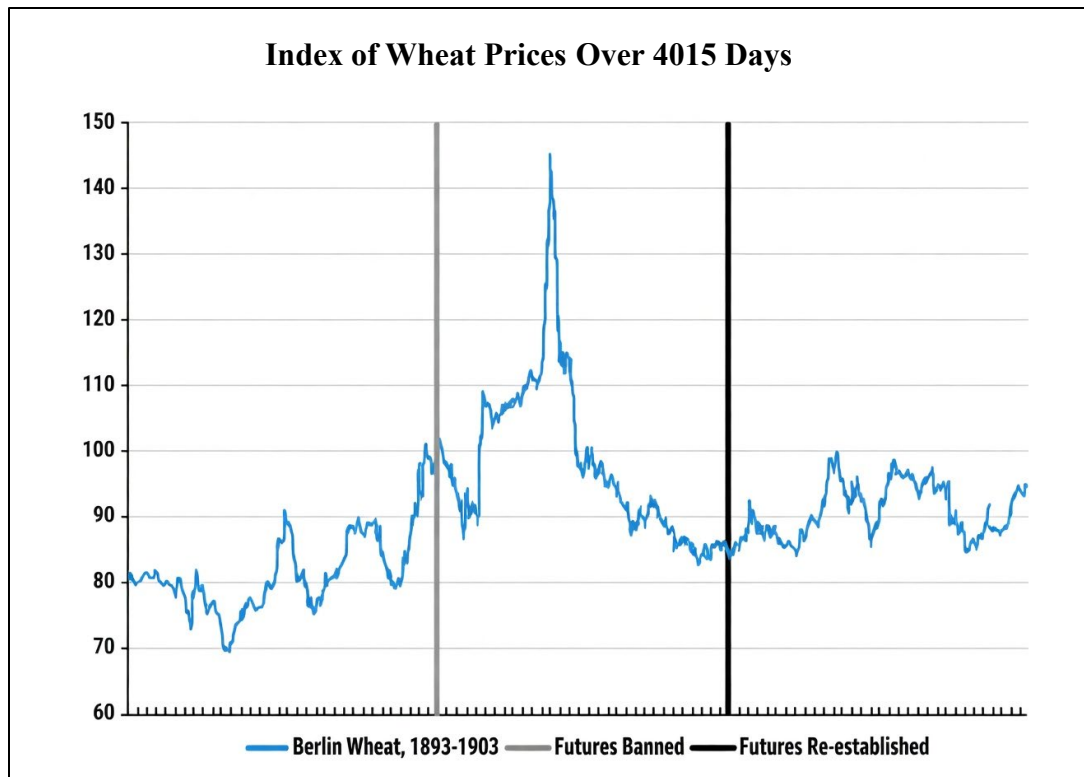
b. **Onion Futures
(1958)**

c. **Brief History
of U.S. Futures
Markets Challenges**



III. A. 1. If Unconvincing Rationale, Contracts are at Risk to being Banned or Heavily Curtailed

a. Berlin Grain Futures (Late 1890s)



Germany banned grain futures in 1897 following a public backlash over price volatility but repealed the ban by 1900 after it failed to stabilize prices.

III. A. 1. If Unconvincing Rationale, Contracts are at Risk to being Banned or Heavily Curtailed

b. Onion Futures (1958)



The U.S. banned onion futures in 1958. This was the first such commodity ban in U.S. history, which was driven by congressional misunderstanding of onion price dynamics and skepticism of futures markets' economic value, despite price volatility being a natural feature of a non-storable crop.

Sources: Working (1963), Gray (1963), and Jacks (2007).

Onion prices were actually *less* volatile during the period when futures trading was blamed for *increasing* volatility and more volatile after the ban.



III. A. 1. If Unconvincing Rationale, Contracts are at Risk to being Banned or Heavily Curtailed

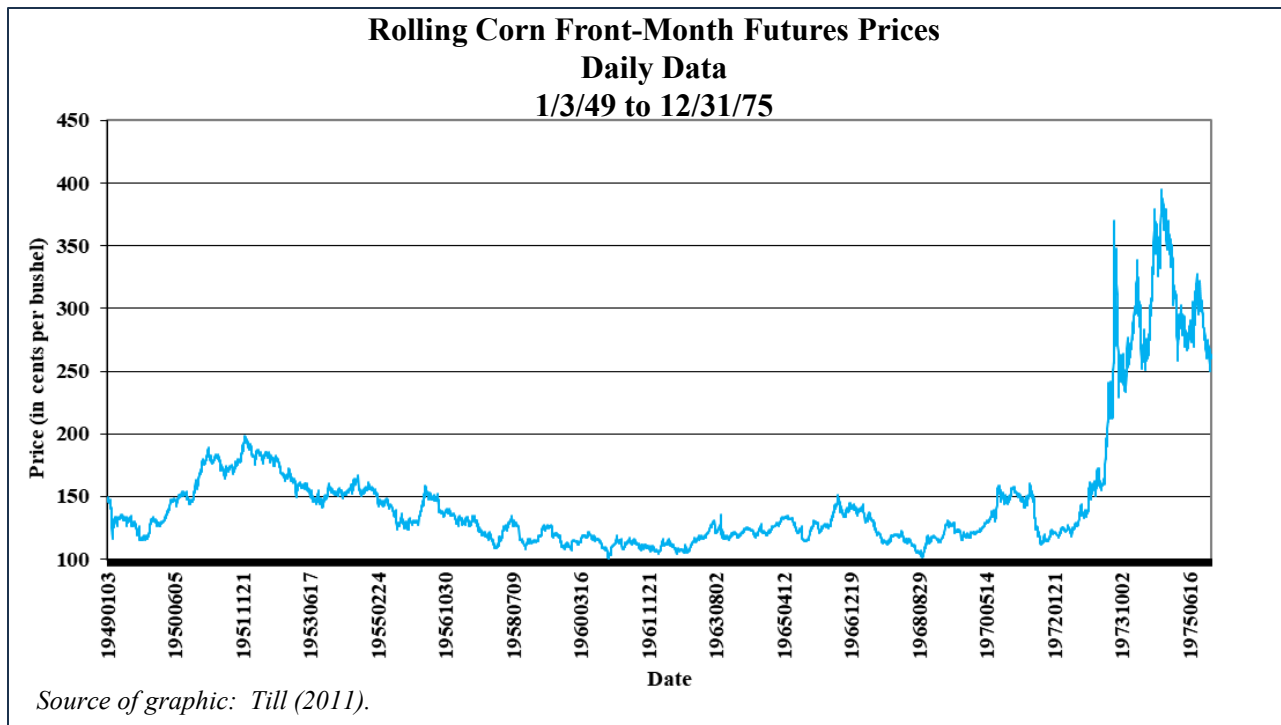
c. Brief History of U.S. Futures Market Challenges

- The U.S. narrowly avoided a broad futures trading ban in the 1890s, with punitive taxation bills failing by slim margins in Congress.**
- Over 330 bills to restrict or ban futures trading were introduced in Congress between 1884 and 1953.**
- Agricultural futures trading was suspended in the U.S. during World Wars One and Two, by degrees, as rationing and prioritizing war objectives overrode other economic objectives.**



III. A. 1. If Unconvincing Rationale, Contracts are at Risk to being Banned or Heavily Curtailed

c. Brief History of U.S. Futures Market Challenges (Continued)



The commodity price surge of 1972–75 was widely blamed on speculation fueled by the rapid expansion of futures trading.

Source: Cooper and Lawrence (1975).

Fundamental economic factors, including oil embargoes, Russian grain imports, and the collapse of Bretton Woods, were ultimately recognized as driving the 1972–75 commodity price surge, sparing futures markets from a severe regulatory crackdown.



III. A. Need a Convincing Economic Rationale

2. Role of Academics and Empirical Studies*

a. Agricultural Futures Contracts

b. Exchange-Traded Financial Derivatives

c. Transparency of Data

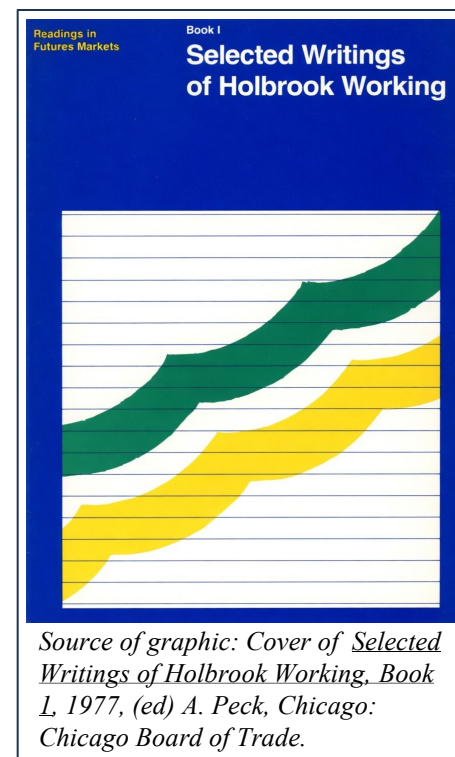
** This section is based on Till (2020).*



III. A. 2. Role of Academics and Empirical Studies

a. Agricultural Futures Contracts

- **In the 1950s and 1960s, three agricultural economists (Working, Gray, and Hieronymous) were pivotal in reframing futures markets as economically beneficial institutions that improve market efficiency, rather than purely speculative vehicles.**
- **In our era, Professor Scott Irwin has picked up the baton of his agricultural economist predecessors in carrying out empirical studies on the role of various types of market participants in grain price formation.**



III. A. 2. Role of Academics and Empirical Studies

b. Exchange-Traded Financial Derivatives

i. Currency Futures

- **A 1971 paper by Milton Friedman, which was commissioned by the CME, provided the academic foundation and credibility for launching currency futures.**

ii. Chicago Board Option Exchange

- **The CBOT similarly sought academic legitimacy for equity options, commissioning Nathan Associates, who enlisted economists including Merton Miller, Burton Malkiel, and William Baumol, to validate the public benefit of an options exchange.**



III. A. 2. Role of Academics and Empirical Studies

c. Transparency of Data

i. Early Work

- **Futures trading has repeatedly survived legal and regulatory challenges because position transparency has enabled objective empirical research to counter unfounded attacks. This dates back to the USDA's 1941 Hoffman and Duvel report.**

ii. Long-Term Study

- **Based on data from 1854–1990, commodity-price volatility is generally higher in the absence of futures markets than when they existed. This is the case across countries, commodities, and 1-, 3-, and 5-year timeframes.**



III. Public Policy

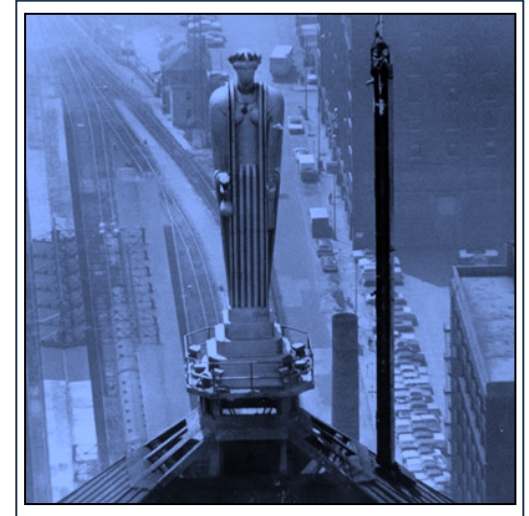
A. Need a Convincing Economic Rationale

B. Necessity of Price-Manipulation Regulation

C. Contracts Viewed as in National Interest

D. Regulatory Parity Across Financial Centers

E. Regulatory Interventions Should Not Be Too Draconian



III. B. Necessity of Price-Manipulation Regulation

- **Without government intervention, commodity futures exchanges historically failed to self-regulate against market power manipulation.**
- **Left unchecked, manipulation undermines futures markets as reliable hedging and price discovery mechanisms.**



III. Public Policy

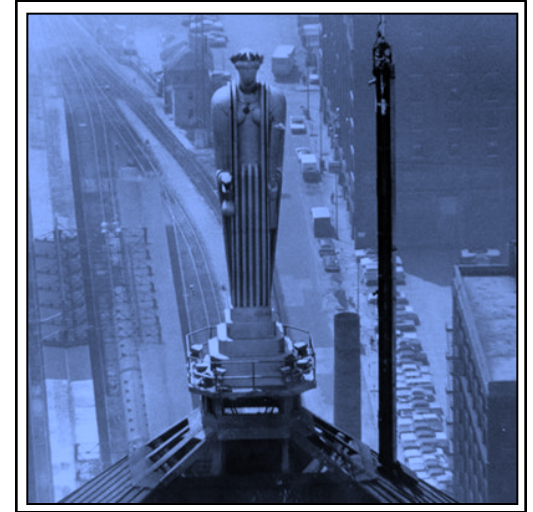
A. Need a Convincing Economic Rationale

B. Necessity of Price-Manipulation Regulation

C. Contracts Viewed as in National Interest

D. Regulatory Parity Across Financial Centers

E. Regulatory Interventions Should Not Be Too Draconian



III. C. Contracts Viewed as in National Interest

1. Foreign Currency Futures

2. Financial Futures

3. Crude Oil Futures

4. Counterexample: Global-Benchmark Rice Futures

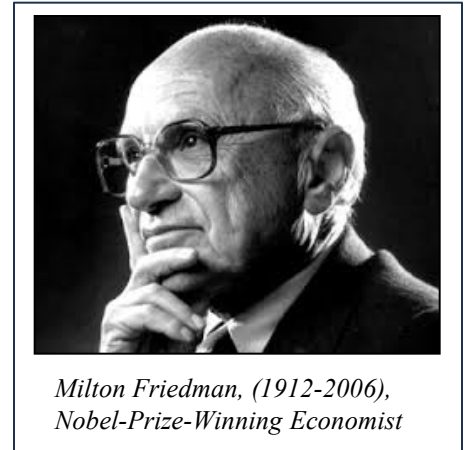
5. Regulatory Gamble: Prediction Markets



III. C. Contracts Viewed as in National Interest

1. Foreign Currency Futures

- **In 1971, Milton Friedman argued that U.S. currency futures would catalyze broader financial services growth, generating export income.**



2. Financial Futures

- **These contracts reduce transaction costs and improve liquidity, ultimately lowering the cost of capital to businesses and boosting economy-wide capital formation.**

III. C. Contracts Viewed as in National Interest

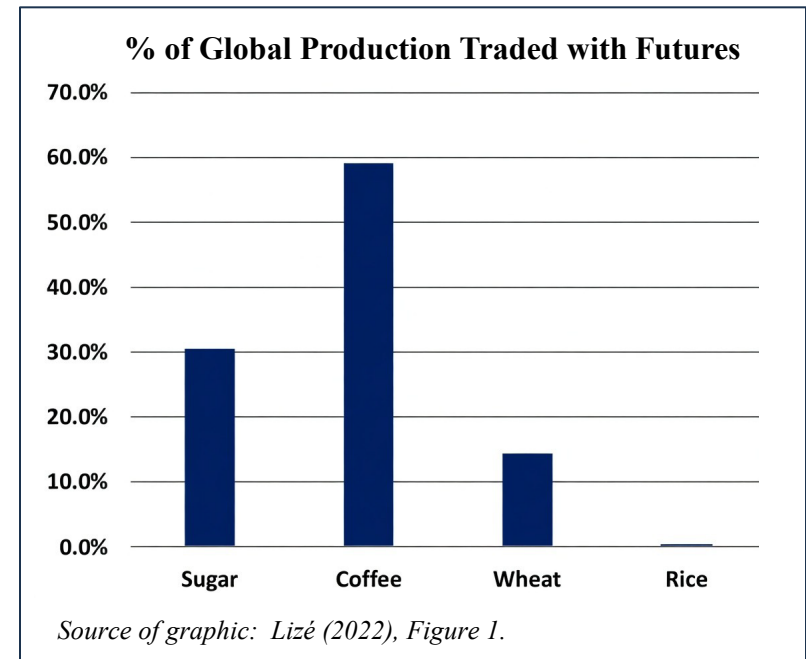
3. Crude Oil Futures

- **Futures markets enable inventory hedging, encouraging greater private stockpiling and thereby lessening the chance of price spikes.**

4. Counterexample:

Global-Benchmark Rice Futures

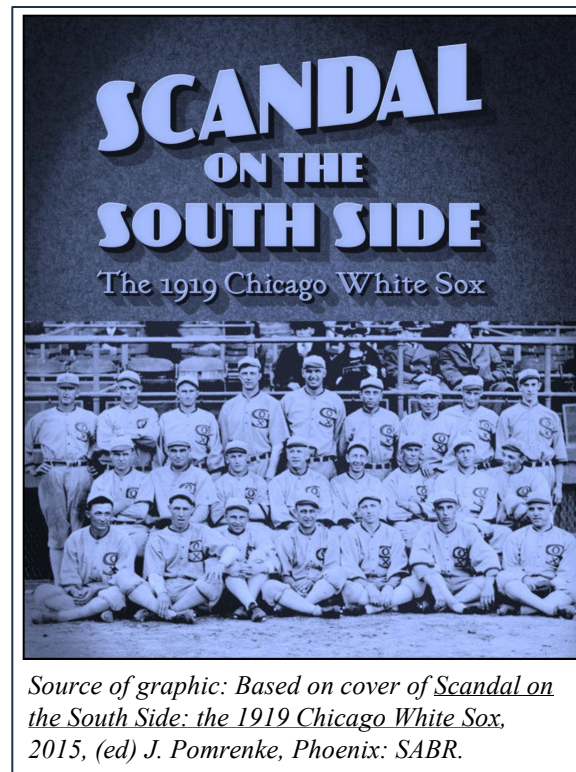
- **Rice, which is the world's largest-value agricultural market, remains financially underdeveloped partly because its dual role as consumer staple and producer livelihood in the Global South makes it exceptionally politically sensitive, inviting government intervention that stifles derivatives development.**



III. C. Contracts Viewed as in National Interest

5. Regulatory Gamble: Prediction Markets

- **Historically, stock index futures contracts had faced extensive regulatory scrutiny because their cash-settlement mechanism raised concerns about their resemblance to gambling.**
- **That sort of scrutiny has arguably not arisen at the federal level with event contracts.**
- **On the one hand, these contracts blur the line between CFTC-regulated derivatives and state-regulated gambling, a dispute likely requiring Supreme Court or Congressional resolution.**
- **Many event contracts settle on outcomes controlled by individuals or small groups, creating manipulation risks, such as occurred in the 1919 baseball bribery scandal, which fixed the World Series.**



Source of graphic: Based on cover of *Scandal on the South Side: the 1919 Chicago White Sox*, 2015, (ed) J. Pomrenke, Phoenix: SABR.

III. C. Contracts Viewed as in National Interest

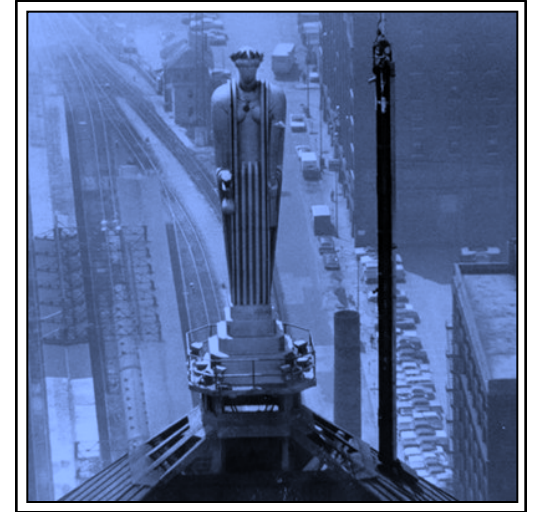
5. Regulatory Gamble: Prediction Markets (Continued)

- On the other hand, the Kalshi prediction markets also supply continuously updated, real-time forecasts for major macroeconomic indicators, complete with detailed probability distributions that go well beyond the point estimates typically available from standard surveys.**
- This development gives policymakers a powerful new way to track evolving market expectations around key economic data, supporting more timely and informed decision-making.**



III. Public Policy

- A. Need a Convincing Economic Rationale**
- B. Necessity of Price-Manipulation Regulation**
- C. Contracts Viewed as in National Interest**
- D. Regulatory Parity Across Financial Centers**
- E. Regulatory Interventions Should Not Be Too Draconian**



III. D. Regulatory Parity Across Financial Centers

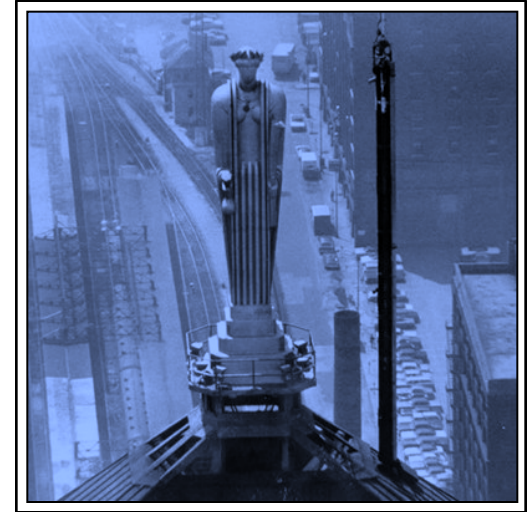
NYMEX vs. ICE Futures Europe

- **As of 2006, traders in ICE's WTI contract could avoid CFTC position limits and reporting requirements, putting NYMEX at risk of losing its flagship contract to a less-regulated foreign venue.**
- **The imbalance was resolved in 2008 when ICE agreed to equivalent CFTC oversight, and the CFTC extended similar requirements to other foreign exchanges trading U.S. commodity contracts.**



III. Public Policy

- A. Need a Convincing Economic Rationale**
- B. Necessity of Price-Manipulation Regulation**
- C. Contracts Viewed as in National Interest**
- D. Regulatory Parity Across Financial Centers**



E. Regulatory Interventions Should Not Be Too Draconian

III. E. Regulatory Interventions Should Not Be Too Draconian

1. Temporary Suspension of Grain Futures Trading

- **The CFTC's 1980 two-day suspension of grain futures trading, triggered by President Carter's grain embargo following the Soviet invasion of Afghanistan, had minimal lasting impact, *as traders temporarily shifted to Canada's Winnipeg Commodity Exchange to hedge and maintain price discovery.***

2. Temporary EU Price Cap on TTF (the EU Natural Gas benchmark)

- **The EU introduced a temporary gas price cap on the TTF benchmark in February 2023 following Russia's 2022 supply cutoff; *ICE launched a parallel uncapped TTF futures market in London as a contingency, but the cap was never triggered, expired in January 2025, and European energy and markets regulators found no significant impacts due to the cap.***



Conclusion

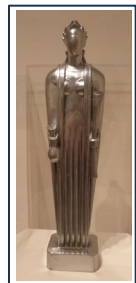
Futures trading can be seen as a game where the competing players, the hedgers and the speculators, each have sufficient economic reasons to participate.

The referee of this game, the governmental authorities, have the power to stop the game, if there is not a sufficiently convincing economic rationale for an exchange-traded derivatives contract's existence.

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 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.

Source of graphic: Art Institute of Chicago.



References

Baldwin, P., 2000, *Chicago History* website, formerly hosted by DePaul University. [Formerly affiliated with DePaul University, Professor Emeritus Baldwin later joined the Department of History at the University of Connecticut.]

BBC2, 1999, “The Midas Formula,” Transcript of BBC2 Television Documentary, December 2.

Beylin, I., 2026, “Regulation of Prediction Markets in the U.S.,” *Commodity Insights Digest*, Bayes Business School (U.K.), Forthcoming Summer 2026. Accessed via website: <https://www.bayes-cid.com/pdf/issues/2026-summer/publications/CID-Summer-2026-Beylin-040726.pdf> on April 8, 2026.

Brand, S., 1964, “The Decline in the Cotton Futures Market,” *Food Research Institute Studies*, Stanford University, Issue 3.

Brorsen, B. and N. F. Fofana, 2001, “Success and Failure of Agricultural Futures Contracts,” *Journal of Agribusiness*, Agricultural Economics Association of Georgia, Vol. 19, No. 2, pp. 129-145.

CFTC [Commodity Futures Trading Commission] Talks, 2017, “Andrew Busch, Chief Market Advisor, with Edward Morse, [Former] Global Head of Commodities Research, Citi,” Washington, D.C., September 19.

Cooper, R. and R. Lawrence, 1975, “The 1972-1975 Commodity Boom,” *Brookings Papers on Economic Activity*, Vol. 6, No. 3, pp. 671-724.

Diercks, A., Katz, J. and J. Wright, 2026, “Kalshi and the Rise of Macro Markets,” Finance and Economics Discussion Series, Board of Governors of the Federal Reserve System, February.

Dougherty Maulsby, D., 2011, “An Untold Leadership Story, How Ag Economists Saved the Markets,” *The Messenger*, November 6.



References

- Dowd, G., 2007, “The Move to Electronic Trading: What to Expect in the Natural-Resources Markets,” in H. Till and J. Eagleeye (eds) Intelligent Commodity Investing, London: Risk Books, pp. 501-515.
- EIA [Energy Information Administration], 2025, "Uranium Marketing Annual Report," September 30. Accessed via website: <https://www.eia.gov/uranium/marketing/> on March 31, 2026.
- Emery, H., 1896, “Speculation on the Stock and Produce Exchanges of the United States,” *Studies in History, Economics and Public Law*, Vol. 7, No. 2, Columbia University.
- Fabian, E., 2025, “New Gas Price Cap on the Horizon – Not Everyone is Happy,” *CEEnergy News*, February 12. Accessed via website: <https://ceenergynews.com/oil-gas/new-gas-price-cap-on-the-horizon/> on April 6, 2026.
- Fielding, N., 2026, “All Caps No Substance: the EU’s Weakening Grasp of Gas Market Reality,” *Argus Media*, March 12. Accessed via website: <https://www.argusmedia.com/en/news-and-insights/market-opinion-and-analysis-blog/eu-gas-price-caps-lng-market-risks> on April 6, 2026.
- Friedman, M., 1971, “The Need for Futures Markets in Currencies,” Commissioned Paper for the Chicago Mercantile Exchange.
- Gray, R., 1963, “Onions Revisited,” *Journal of Farm Economics*, Vol. 45, No. 2, May, pp. 273-276.
- Gray, R., 1966, “Why Does Futures Trading Succeed or Fail: An Analysis of Selected Commodities,” Proceedings of the Futures Trading Seminar, Volume III, Madison: Mimir Publishers, pp. 115-137.
- Harris, E., 1970, “History of the Chicago Mercantile Exchange,” in H. Bakken (ed) Futures Trading in Livestock – Origins and Concepts, Madison: Mimir Publishers, pp. 49-54.
- Heather, P., 2023, “European Traded Gas Hubs: Their Continued Relevance,” Oxford Institute for Energy Studies, OEIS Paper: NG183, June. Accessed via website: <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2023/06/European-Traded-Gas-Hubs-their-continued-relevance-NG183.pdf> on April 6, 2026.
- Hoffman, G. and J. Duvel, 1941, “Grain Prices and the Futures Markets: a 15-Year Survey, 1923-1938,” United States Department of Agriculture, Technical Bulletin No. 747, January.
- [IEA] International Energy Agency, 2012, “Gas Pricing and Regulation: China’s Challenges and IEA Experience,” *IEA Publication*.



References

- Irwin, S., 2012, “Futures Markets and Speculation: Lessons from the Past for Today,” Presentation at the Chicago Mercantile Exchange, October 18.
- Jacks, D., 2007, “Populists Versus Theorists: Futures Markets and the Volatility of Prices,” *Explorations in Economic History*, Elsevier, Vol. 44, No. 2, April, pp. 342-362.
- Johnson, J., 2002, “Book Review [of] The Natural Gas Market: Sixty Years of Regulation and Deregulation,” *The Independent Review: A Journal of Political Economy*, Volume 6, Number 4, Spring.
- Lamb, B., 2020, “The Black Sox Scandal,” in B. Nowlin (ed) *SABR 50 at 50: The Society for American Baseball Research's Fifty Most Essential Contributions to the Game*, Lincoln, Nebraska: University of Nebraska Press, pp. 506-524.
- Lizé, S., 2022, “The Crop with No Futures: Explaining the Absence of Derivatives Trading in the Rice Market,” *Global Commodities Applied Research Digest*, J.P. Morgan Center for Commodities, Vol. 7, No. 1, Summer, pp. 48-55.
- Lothian, J., 2009, “Testimony Before the U.S. Commodity Futures Trading Commission Regarding ‘Open Hearings to Discuss Energy Position Limits and Hedge Exemptions,’” Washington D.C., July 29. Accessed via website: http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/hearing072909_lothian.pdf on April 2, 2026.
- Lurie, J., 1979, *The Chicago Board of Trade, 1859-1905: The Dynamics of Self-Regulation*, Urbana: University of Illinois Press.
- Mackenzie, D., 2006, *An Engine, Not a Camera: How Financial Models Shape Markets*, Cambridge, MA: MIT Press.
- Melamed, L., 1994, “A Brief History of Financial Futures: Presented at the Seminar on Financial Futures,” Shanghai, May 3. Accessed via website: <http://www.leomelamed.com/Speeches/94-china.htm> on April 2, 2026.
- Melamed, L., 2009, *For Crying Out Loud: From Open Outcry to the Electronic Screen*, Hoboken: Wiley.
- Melin, M., 2013, “Opalesque Round Table Series '13: Chicago,” *Opalesque.com*.
- Mussa, M., Goldstein, M., Clark, P., Mathieson, D. and T. Bayoumi, 1994, “Improving the International Monetary System: Constraints and Possibilities,” *International Monetary Fund Occasional Paper 116*, December.
- Otte, J., 2012, “Curb Excess Speculation?,” *Farm Futures*, May 8.



References

- Paul, A., Kahl, K. and W. Tomek, 1981, "Performance of Futures Markets: The Case of Potatoes," U.S. Department of Agriculture, National Economics Division: Economics and Statistics Service, *Technical Bulletin No. 1636*, January.
- Petzel, T., 2001, "Elusive Liquidity," *@Markets Magazine*, January/February.
- Pirrong, C., 2005, "Bund For Glory, or It's a Long Way to Tip a Market," *University of Houston Working Paper*, March 8.
- Pirrong, C., 2006, "Exchange Fees and Market Power," *Streetwise Professor*, January 25.
Accessed via website: <http://streetwiseprofessor.com/?p=14> on March 31, 2026.
- Pirrong, C., 2017, "The Economics of Commodity Market Manipulation: A Survey," *Journal of Commodity Markets*, Vol. 5, March, pp. 1-17.
- Pirrong, C., 2025a, "Don Wilson on the Future of Trading: GPUs, the Cloud, and Tokenization," *Streetwise Professor*, September 29. Accessed via website: <https://streetwiseprofessor.com/don-wilson-on-the-future-of-trading-gpus-the-cloud-and-tokenization/> on March 31, 2026.
- Pirrong, C., 2025b, "Going Vertical," *Streetwise Professor*, October 11.
Accessed via website: <https://streetwiseprofessor.com/going-vertical/> on March 31, 2025.
- Pringle, A. and T. Fernandes, 2007, "Relative-Value Trading Opportunities in Energy and Agriculture," in H. Till and J. Eagleeye (eds) *Intelligent Commodity Investing*, (London: Risk Books), pp. 313-339.
- Rausser, G. and H. Bryant, 2004, "Contract Market Viability," Presentation at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management, St. Louis, Missouri, April 19-20.
- Shiller, R., 1998, *Macro Markets: Creating Institutions for Managing Society's Largest Economic Risks*, Oxford: Oxford University Press.
- Silber, W., 1985, "The Economic Role of Financial Futures," in A. Peck (ed) *Futures Markets: Their Economic Role*, Washington D.C.: American Enterprise Institute for Public Policy Research, pp. 83-114.
- Skouratova, E., Tse, Y. and V. Martinez, 2008, "Market Competition in Crude Oil Futures," *University of Texas at San Antonio and Fairfield University Working Paper*, September.



References

- Stassen, J., 1982, “The Commodity Exchange Act in Perspective: A Short and Not-to-So Relevant History of Futures Trading Legislation in the United States,” *Washington and Lee Law Review*, Vol. 39, No. 3, Article 3.
- Talley, I., 2008, “Limits Put on Some Oil Contracts On ICE Amid Outcry Over Prices,” *Wall Street Journal*, June 17.
- Tchilinguirian, H., 2006, “Market Prices: What Do Oil Prices Say about Fundamentals: Presented to the 7th China Oil Traders’ Conference,” International Energy Agency Presentation, Nanjing, Jiangsu, China, April 18 through April 20.
- Till, H., 2001, “Taking Full Advantage of the Statistical Properties of Commodity Futures Investments,” *Journal of Alternative Investments*, Vol. 4, No. 1, Summer, pp. 63-66.
- Till, H., 2008, “[The Oil Markets: Let the Data Speak for Itself](#),” *EDHEC-Risk Institute Position Paper*, EDHEC Business School (France), October.
- Till, H., 2011, “[A Review of the G20 Meeting on Agriculture: Addressing Price Volatility in the Food Markets](#),” *EDHEC-Risk Institute Position Paper*, July.
- Till, H., 2014, “[Why Haven’t Pulp Futures Contracts Succeeded?](#),” *EDHEC-Risk Institute Publication*, December.
- Till, H., 2020, “[The Role of Academics and Empirical Studies in Evaluating Futures Markets](#),” *Global Commodities Applied Research Digest*, Vol. 5, No. 2, Winter, pp. 35-44.
- Till, H., 2024, “[Hedging Battery-Material Price Risk: The Case of Lithium Compounds](#),” *Commodity Insights Digest*, February.
- Till, H., 2025, “[Betting on the Future: Determinants of Success and Failure in Futures Contracts](#),” *Commodity Insights Digest*, Vol. 3, No. 2, Winter, pp. 89-100.
- U.S. Senate, 2009, “Excessive Speculation in the Wheat Market,” Majority and Minority Staff Report, Permanent Subcommittee on Investigations, June 24.
- Verleger, P., 2010, “First Do No Harm,” Speech to the Futures Industry Association, March 11.
- Vince, R., 1992, *The Mathematics of Money Management*, New York: John Wiley & Sons.
- Weitzman, H., 2011, “Chicago’s Decade of Innovation (1972-1982),” *Focus*, World Federation of Exchanges Newsletter, April.



References

Working, H., 1953, "Futures Trading and Hedging," *American Economic Review*, Vol. 43, No. 3, June, pp. 314-343.

Working, H., 1954, "Whose Markets? Evidence of Some Aspects of Futures Trading," *Journal of Marketing*, Vol. 19, No. 1, July, pp. 1-11.

Working, H., 1963, "Futures Markets Under Renewed Attack," *Food Research Institute Studies*, Vol. 4, No. 1, pp. 1-24.



This logo is registered in the U.S. Patent and Trademark Office.