BACK TO THE FUTURES

Topic Guide for Teachers

Chapter Summaries and Commodity Market Topics

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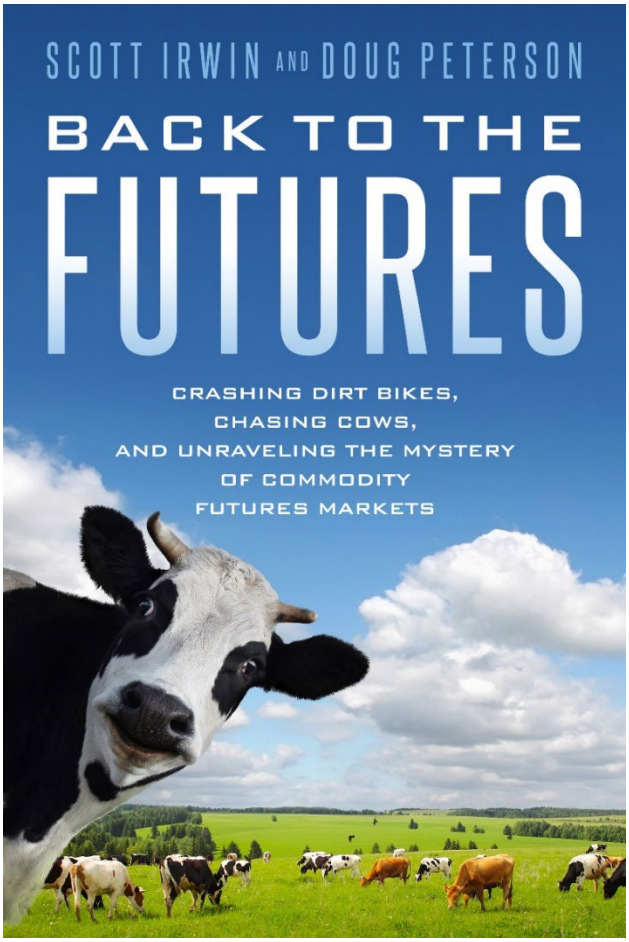
This document provides chapter-by-chapter summaries and lists of commodity market topics covered in *Back to the Futures*. These materials are designed to help teachers who want to use the book as a textbook or supplementary text in courses on agricultural economics, commodity markets, futures trading, or financial markets.



Chapter 1: My Near-Death Experience

Summary

This opening chapter introduces the author through a harrowing childhood accident in which he was struck by a Pepsi delivery truck at age nine in Bagley, Iowa, suffering a broken leg in four places and a concussion. The near-death experience sets up the book's unique structure of interweaving personal risk-taking with explanations of commodity futures markets. Irwin explains fundamental concepts about commodities, beginning with fungibility, which is the property that makes something a commodity rather than a branded product. He describes how middle operators add value by transforming commodities in space and form and introduces the transformation in time that is at the heart of futures markets. Drawing on nearly forty years as an agricultural economist, Irwin introduces the "Anti-Speculation Cycle"—the recurring pattern in which politicians and media blame speculators whenever commodity prices move sharply, up, or down, convinced that price swings reflect sinister manipulation rather than normal market forces.

Commodity Market Topics Covered

- Commodity Definition and Fungibility: What makes a product a commodity, and how fungibility distinguishes commodities from branded goods
- Role of Middle Operators: How intermediaries transform commodities in space, form, and time to add economic value
- The Anti-Speculation Cycle: The recurring pattern of blaming speculators for commodity price swings—both high and low—driven by the misconception that speculators increase rather than reduce price volatility

Chapter 2: Daredevils

Summary

The chapter opens with the reckless exploits of Irwin's childhood friend Jack Hunter—snowmobile jumping stunts and a harrowing skibob towing disaster on Christmas Day 1974—as a metaphor for the risks speculators take in futures markets. Irwin traces the historical evolution from informal forward contracts to the standardized futures contracts developed at the Chicago Board of Trade in the mid-19th century, explaining why standardization was essential for efficient trading. The chapter tackles the "physical fallacy"—a term coined by economist Thomas Sowell—the widespread misconception that speculators are economic parasites because they produce nothing tangible. Irwin explains that speculators provide the crucial economic service of absorbing price risk from commercial operators such as grain merchants and processors. By taking the other side of commercial operators' contracts, speculators provide market liquidity and, counterintuitively, make prices less volatile. The chapter also introduces the concepts of going long and going short.

Commodity Market Topics Covered

- Forward vs. Futures Contracts: The historical evolution from private forward contracts to standardized, exchange-traded futures contracts at the Chicago Board of Trade
- The Physical Fallacy: Why speculators provide genuine economic value despite not producing physical goods—a term coined by economist Thomas Sowell, describing the belief that non-producers are economic parasites
- Market Liquidity and Risk Transfer: How speculators provide liquidity and enable risk transfer, making commodity prices less volatile

Chapter 3: Pit Bulls

Summary

Irwin recalls his first visit to the Chicago Board of Trade trading floor in 1978 as a sophomore at Iowa State and presents an in-depth interview with Terry Duffy—who rose from bartender to runner to floor trader to CEO of the CME Group. The chapter immerses readers in the mechanics of open outcry trading: hand signals, colorful trading jackets, order flow from farmers through brokers to floor traders, and the inevitable "out-trades" caused by miscommunication. Irwin explains the price discovery process and the historical specializations of the CBOT (grains) and CME (livestock contracts). The chapter examines the FBI's 1989 undercover investigations—Operations Sourmash and Hedgeclipper—exposing how brokers rigged trades against their own customers. It concludes with the rise of electronic trading through Globex (launched in 1992), which proved superior to pit trading in speed, cost, and fairness, ultimately rendering the iconic trading floors obsolete.

Commodity Market Topics Covered

- Open Outcry Trading Mechanics: How pit trading worked—hand signals, order flow, out-trades, and the colorful culture of the trading floor
- Price Discovery Process: How futures markets aggregate information from thousands of traders to establish prices that reflect current supply and demand
- Electronic vs. Pit Trading: Why electronic trading via Globex displaced open outcry, offering superior speed, lower cost, and greater fairness

Chapter 4: Elvis and Evel in Iowa

Summary

Irwin's father channels his inner daredevil—attempting motorcycle jumps in a red polyester jumpsuit—while Irwin's mother emerges as a naturally skilled crop marketer. These contrasting personalities frame the chapter's central lesson about hedging. Using a simple example of Frank the farmer who does not hedge and Estelle the farmer who does, Irwin explains that hedging is the flip side of speculation: selling futures in the spring to lock in a price and protect against a fall price decline. He shows that hedging cuts both ways—it protects against losses but also surrenders potential gains when prices rise. The chapter introduces the "hedgulator"—a farmer who thinks he is hedging but is actually speculating by selectively hedging only when he expects prices to fall. Irwin examines a real-world example of a Texas cattle producer who hedged 100% of production, illustrating both the protective benefits and the opportunity costs of full hedging.

Commodity Market Topics Covered

- Hedging Mechanics: How the Frank and Estelle example illustrates selling futures to lock in a price and transfer price risk from farmer to speculator
- Cash/Futures Price Relationship: How cash and futures prices move together in parallel, enabling hedgers to offset losses in one market with gains in the other
- The 'Hedgulator' Trap: Why selectively hedging only when prices are expected to fall is speculation in disguise, not true risk management

Chapter 5: My Spectacular Speculation Crackup

Summary

Two crashes frame Chapter 5: Irwin's snowmobile collision with a snow-buried truck in a February blizzard and his financial crack-up trading corn futures as a graduate student in 1981—each a sudden, unexpected impact he never saw coming. Like the physical crash, the trading disaster arrived in an instant: he borrowed $3,000 from student loans, went long corn ahead of an August USDA crop report, watched the market lock limit-down, and was saved only by a 30-second price blip that allowed his stop orders to fill. The chapter explains USDA crop report mechanics, how price limits and lock-limit conditions work, and the critical importance of good information in futures trading. The disaster launches Irwin on a decades-long intellectual quest, leading him ultimately to the work of Holbrook Working—a journey explored in the next chapter.

Commodity Market Topics Covered

- USDA Crop Reports and Price Limits: How USDA crop reports move markets and how exchange-set price limits and lock-limit conditions affect trading
- Stop Orders and Risk Management: How stop-loss orders work in futures markets and their limitations during fast-moving markets
- The Role of Information in Futures Trading: Why superior information is the only reliable edge in futures markets, and the high cost of trading without it

Chapter 6: The Engine of Efficiency

Summary

Irwin's father—a speed-obsessed farmer who raced go-karts and drag-raced his tricked-up 1974 Chevy pickup—serves as the perfect metaphor for the chapter's central subject: the powerful economic engine driving commodity market prices, the Efficient Market Hypothesis (EMH). Irwin traces the EMH from Holbrook Working's 1934 discovery that commodity price changes appear random, through Eugene Fama's landmark 1970 article (earning Fama the 2013 Nobel Prize). The chapter presents Irwin's AgMAS Project—a decade-long study tracking roughly 25 farm market advisory services with colleague Darrel Good—which found that only 1 of 25 services consistently outperformed the market. This evidence supports the EMH but leads Irwin to a more nuanced view: a small minority of traders with genuinely superior information can beat the market. The chapter also explains Working's Supply of Storage Theory, which links futures prices across delivery dates to the cost of carrying grain inventories.

Commodity Market Topics Covered

- Efficient Market Hypothesis and Random Walk: How Working's and Fama's research established that prices reflect available information, making consistent outperformance extremely difficult
- AgMAS Project: A decade-long study finding that only 1 in 25 farm marketing advisory services consistently beat market benchmarks
- Supply of Storage Theory: Working's framework explaining how futures markets signal the proper amount of grain to be stored from years of plenty to lean years, ensuring adequate carryover supplies

Chapter 7: Towing Icebergs

Summary

In 1977, Irwin and friends staged an elaborate prank at the First International Conference on Iceberg Utilization at Iowa State—towing a Styrofoam iceberg across Lake LaVerne—nearly causing an international incident. After a severe dressing-down that stopped just short of expulsion, the dean kept Irwin back and showed him his cutting-edge crop weather models, planting the seed of his research career. The chapter explains how crop weather models represent the type of superior information that can provide a genuine edge in commodity futures markets. Irwin describes his collaboration with meteorologist Mike Tannura to create the Yieldcast service, which achieved an outstanding grain yield forecasting record from 2010 onward by detecting weather-driven yield signals before they were reflected in USDA estimates. The chapter introduces market manipulation through corners, setting up Chapter 8.

Commodity Market Topics Covered

- Crop Weather Models and Yield Forecasting: How weather-based crop models can detect yield signals before USDA estimates, providing a genuine informational edge in grain markets
- Superior Information as the Key to Beating the Market: Why only traders with truly superior, non-public information can consistently profit in efficient commodity futures markets
- Market Manipulation: How corners and squeezes work as the primary mechanism of futures market manipulation, with detailed historical examples in Chapter 8

Chapter 8: Steer Crazy

Summary

El Diablo—a late-castrated steer that breaks loose and chases Irwin across a soybean field—opens a chapter that uses 4-H steer competition as a metaphor: if the temptation to bend the rules exists at the county fair, it should come as no surprise that it exists in the commodity futures markets too. Irwin recounts the Great Russian Grain Robbery of 1972, when secret Soviet purchases of massive quantities of U.S. grain sent prices soaring and revealed how government secrecy can distort markets. He then examines President Nixon's 1973 soybean export embargo, which caused prices to crash $4 per bushel and shifted Japanese buyers toward Brazilian suppliers. The chapter details the Hunt Brothers' alleged 1977 soybean corner, which earned only a regulatory slap on the wrist. Irwin draws careful distinctions between genuine manipulation (coordinated corners with market power) and the imagined manipulation that politicians often invoke during price spikes.

Commodity Market Topics Covered

- Market Corners and Manipulation: How the Hunt Brothers' alleged 1977 soybean corner earned only a regulatory slap on the wrist, and why classic corners remain the primary real manipulation threat
- Government Intervention—The 1973 Soybean Embargo: How Nixon's export embargo triggered a price collapse and altered global soybean trade flows toward Brazil
- Distinguishing Real vs. Imagined Market Manipulation: Why genuine manipulation requires coordinated market power, and how over-regulation based on manipulation fears harms normal speculation

Chapter 9: All That Glitters is Goldman

Summary

A brawl at a 1982 Iowa stock car race—courtesy of the infamous Woodard Brothers—gives Irwin a vivid metaphor for Goldman Sachs, which he first visits as a wide-eyed PhD student in 1984. Both are ruthless, win-at-any-cost operators, just in different arenas. The chapter traces how Goldman built the first major commodity index, opening futures markets to institutional investors who had previously stayed on the sidelines. Two commodity super-cycles—the 1970s and the 2000s—showed how periodic price spikes fuel anti-speculation hysteria while making commodity index funds briefly look like brilliant investments. At the heart of the chapter is the debate between Keynes's risk premium theory—that speculators earn a return for absorbing hedgers' price risk—and the opposing view of Working, Gray, and Hieronymus that no such premium consistently exists. Goldman's perfectly timed sale of the index to Standard & Poor's at the 2007 price peak underscores the chapter's structural argument: unlike stocks, commodities have no fundamental long-term upward price trend, making index investing a flawed strategy.

Commodity Market Topics Covered

- Goldman Sachs Commodity Index and Index Investing: How the GSCI opened commodity markets to institutional investors, and why commodity index investing has underperformed as a long-term strategy
- Commodity Super-Cycles: How converging factors in the 1970s and 2000s drove historic commodity price spikes and anti-speculation hysteria
- Keynes's Risk Premium Theory: The debate between Keynes's view that speculators earn a risk premium and the Working/Gray/Hieronymus view that no systematic premium exists

Chapter 10: The Onion Crying Game

Summary

Colorful rural physical education—boxing matches, indoor hockey, archery accidents—frames a chapter on market regulation gone wrong. The central story is Vincent Kosuga's audacious scheme to corner the Chicago onion market in the mid-1950s: working with partner Sam Siegel, he accumulated a position controlling 98% of Chicago's onion supply before dumping their onions on the market anyway, breaking their word and making a huge profit. Congress responded by passing the 1958 Onion Futures Act, making onions the only active commodity futures market ever banned from trading in the U.S. Irwin shows that Holbrook Working and Roger Gray's research demonstrated the ban actually made onion prices more volatile, not less, by removing the stabilizing role of futures. The chapter introduces Roger Gray—Irwin's "Provocateur"—and his role in defending futures markets from Nixon-era closure threats. As a modern parallel, Irwin recounts the brief life of movie box-office futures which were approved by the CFTC in June 2010 and banned by Dodd-Frank just one month later.

Commodity Market Topics Covered

- The 1958 Onion Futures Ban: How Vincent Kosuga's market corner led Congress to ban onion futures—the only active U.S. commodity futures market ever prohibited from trading
- Volatility With vs. Without Futures Markets: Working and Gray's research showing that the onion futures ban increased rather than decreased price volatility
- Movie Box-Office Futures—A Modern Parallel: How Hollywood's successful lobbying killed CFTC-approved movie futures contracts just one month after approval under Dodd-Frank

Chapter 11: The Destroying Angel

Summary

A mysterious FedEx package from an anonymous conspiracy theorist—containing a $10,000 prize check if Irwin could disprove his theory about fake futures contracts driving non-convergence—forces a decision about going public. The chapter's market content centers on the non-convergence crisis of 2007–2008, when Chicago grain futures prices expired as much as $2.00 per bushel above local cash prices, violating the Law of One Price that is supposed to tie futures and cash markets together. Irwin and colleagues began the intensive research effort to determine the true cause of non-convergence, ruling out manipulation while working toward a structural explanation that would take several more years to fully establish. This work led to Irwin's first testimony before Congress, marking his commitment to publicly defending futures markets against politically motivated attacks.

Commodity Market Topics Covered

- Convergence and the Basis: How futures and cash prices are linked by arbitrage, what the basis measures, and why prices must converge at contract expiration
- The 2007–2008 Non-Convergence Crisis: Why Chicago grain futures expired as much as $2.00/bushel above cash prices, how manipulation was ruled out as the cause, and why the full structural explanation required years of further research
- Congressional Testimony and the Public Defense of Futures Markets: Irwin's decision to step into the public arena to provide evidence-based testimony defending commodity futures markets

Chapter 12: Ferris Irwin's Week Off

Summary

Irwin and college friend Jeff Hemer skip class during their senior year to road-trip to the 1980 Formula One Grand Prix in Long Beach, California—their real-life version of Ferris Bueller's Week Off—framing a chapter on the 2007–2008 commodity price spike and the political and academic crisis it triggered. Congressional hearings targeted commodity index funds as the culprit. Irwin and colleague Dwight Sanders launched intensive research using CFTC data on commodity index trader positions obtained from Senator Levin's Senate subcommittee. The data revealed that index fund positions had grown substantially in 2004–2005—well before the price spike—and were actually flat during the spike itself in 2007–2008, contradicting the theory that index funds caused the price surge. The chapter closes with the emergence of Irwin's nemesis—Michael Masters—setting up Chapter 13.

Commodity Market Topics Covered

- 2007–2008 Price Spike and Congressional Response: How commodity prices reaching historic highs triggered Congressional hearings targeting commodity index funds as the culprit
- CFTC Data on Index Trader Positions: How Senate subcommittee data enabled the first rigorous statistical tests of the index fund speculation hypothesis
- The Masters Hypothesis—Naming and Testing the Theory: How Irwin and Sanders named and began systematically testing the claim that index fund speculation caused the 2007–2008 commodity price spike

Chapter 13: Bubble Boy

Summary

A rodeo club bar brawl at a hotel in Ames—a barstool hurled through a mirror—gives Irwin the perfect metaphor for the academic barroom brawl over the Masters Hypothesis that follows. The chapter explains Masters's Congressional testimony, where he claims that index fund speculators had artificially inflated oil prices from a fair value of $60–70 to over $140 per barrel. Irwin systematically refutes this by explaining that futures markets are two-sided—every contract has both a buyer and a seller—so index funds buying long contracts are offset by other parties selling short. Irwin and Sanders coined "the Masters Hypothesis" as the title of a new paper—a deliberate, provocative act that gave the theory a name and, in academic circles, was the equivalent of hurling a wooden chair at a plate-glass mirror. Statistical analysis by Irwin and Sanders found no correlation between changes in index fund positions and commodity price changes, and the Masters Hypothesis ultimately failed rigorous empirical testing.

Commodity Market Topics Covered

- The Masters Hypothesis—Claims and Evidence: Michael Masters's argument that commodity index fund speculation drove the 2007–2008 price spike, and the statistical evidence refuting it
- Two-Sided Markets and Price Impact: Why every futures contract requires both a buyer and seller, and why index fund buying does not systematically push prices higher
- Statistical Testing of Speculation Theories: How Irwin and Sanders used CFTC data to test and reject the Masters Hypothesis across multiple commodities and time periods

Chapter 14: The Hatfields and the McCoys

Summary

An axe accident that put 15 stitches in Irwin's forehead—and the metaphor of stacking boxes on benches to illustrate systemic risk—introduces a chapter on leverage, margin calls, and the Dodd-Frank regulatory battle over position limits. The 2022 nickel market crisis illustrates how outsized positions can create margin cascades threatening the stability of global commodity markets—and how the London Metal Exchange's controversial decision to cancel trades compounded the damage. Irwin then chronicles the Dodd-Frank position limits battle, in which CFTC Chairman Gary Gensler pushed sweeping new rules targeting commodity speculators. Irwin and finance professor Craig Pirrong challenged these rules, and the CFTC's first round of rulemaking were defeated when Judge Wilkins vacated the regulations in 2012. The chapter also recounts the 1989 Ferruzzi soybean corner.

Commodity Market Topics Covered

- Systemic Risk in Commodity Markets: How the 2022 nickel crisis showed that outsized speculative positions can create margin cascades threatening the stability of global commodity markets
- Margin Calls and Leverage: How margin requirements and leverage work in futures markets, and why large positions can generate destabilizing margin calls during price spikes
- Position Limits—The Dodd-Frank Regulatory Battle: The decade-long legal and regulatory fight over CFTC position limit rules, from Gensler's original proposal through two court defeats to final rules in 2020

Chapter 15: All the Smears That Are Fit to Print

Summary

Destroying his father's rotary hoe and driving it through Bagley in a "Parade of Shame" opens a chapter that uses this humiliation as the perfect metaphor for what follows: a December 2013 front-page story in the New York Times business section targeting Irwin and colleague Craig Pirrong, implying their research defending commodity futures markets was tainted by industry funding. The chapter examines the role of research funding and conflicts of interest in academic economics, and Irwin's defense that peer review—not funding source—is the proper test of research quality. Pirrong's case is particularly compelling, because his industry-funded systemic risk research actually contradicted his funder's preferred conclusions. The chapter documents the academic consensus that had by then thoroughly debunked the Masters Hypothesis, while cautioning that bad ideas never die—the Anti-Speculation Cycle will recur in the next commodity price spike, regardless of the evidence accumulated against it.

Commodity Market Topics Covered

- Research Funding and Academic Integrity: How funding sources can create perceived conflicts of interest, and why peer review—not funding—is the proper standard for evaluating research quality
- Peer Review as Scientific Validation: How the peer review process provides independent validation of research methods and findings, regardless of who funded the work
- Media Coverage and the Reputational Risks of Evidence-Based Research: How journalists and advocacy groups can damage researchers' reputations when their evidence-based findings challenge popular narratives

Chapter 16: The Market Finds a Way

Summary

When the Weld brothers were disqualified from the 1964 sprint car Nationals for poor sportsmanship, Pappy Weld sold the winning car for $1 so another driver could race it to victory while the banned Welds watched from a rooftop. That story parallels how commodity markets find solutions to seemingly intractable problems—and Jeff Goldblum's line from Jurassic Park, "life finds a way," runs as a thread throughout the chapter. Like the dinosaurs and the Welds, the market will not be contained by rules that artificially constrain prices. The chapter details how Irwin, Philip Garcia, and Aaron Smith solved the non-convergence crisis: they identified that the root cause was the exchange's artificially low storage rate cap—which caused futures prices to diverge from cash prices when market storage costs exceeded the cap. The solution was the CME's new Variable Storage Rate system, which automatically adjusts storage rates when price spreads reach a threshold, ending non-convergence and saving the wheat futures contract from a potentially fatal alternative remedy.

Commodity Market Topics Covered

- Solving the Non-Convergence Problem—Variable Storage Rates: How Irwin, Garcia, and Aaron Smith identified the storage rate cap as the root cause of non-convergence, and how the CME's Variable Storage Rate system restored futures-cash price convergence
- Storage Rates and the Carry: How the futures market's "carry"—the price spread between contracts of different delivery months—signals the cost of storing grain across time
- Market Adaptation to Regulatory Constraints: How futures exchanges and markets adapt contract design and pricing to solve structural problems created by regulation

Chapter 17: Trading Spaces

Summary

Leo Melamed's extraordinary biography—fleeing Nazi and Soviet persecution as a child before becoming CME chairman—frames the story of the electronic trading revolution he championed against fierce resistance from pit traders. Melamed recognized that electronic trading would eventually replace open outcry and pushed the development of Globex, launched in 1992 despite intense opposition from floor traders whose livelihoods depended on the pits. The chapter details the launch of E-mini S&P 500 futures on September 9, 1997, which generates 8,000 trades on opening day, and how 24-hour electronic trading transformed access to futures markets. The CME-CBOT merger in July 2007 formed CME Group, the world's largest derivatives exchange. The chapter also examines whether floor traders exploited pit noise for their own benefit rather than their customers, and how electronic trading eliminated this conflict of interest.

Commodity Market Topics Covered

- Globex and the Electronic Trading Revolution: How Leo Melamed championed electronic trading despite pit trader resistance, transforming futures markets with faster, cheaper, and fairer execution
- The E-mini Contract and 24-Hour Trading: How the E-mini S&P 500 futures contract democratized access to equity index futures and established 24-hour electronic trading as the industry standard
- Front-Running and Market Fairness: How pit trading enabled floor traders to front-run customer orders, and how electronic trading eliminated this structural conflict of interest

Chapter 18: Outrunning Your Angels

Summary

Rick Vaughan's Plymouth Belvedere garbage explosion and cousin Eric Hanson's Mercury Cougar bridge jump—both hair-raising near-disasters where the boys barely outran disaster—introduce a chapter on the speed revolution in electronic futures trading and its unforeseen consequences. The centerpiece is the USDA's 2013 decision to release crop reports at 11 a.m. Central Time—directly into live trading—creating a real-life version of the "Trading Places" scenario where faster access translates into millions of dollars in trading profits. The chapter traces how competitive pressure between futures exchanges drove this change, examines how high-frequency traders exploit speed advantages through algorithmic trading, and documents the security breach concerns this created for USDA lockdown procedures. Irwin proposes a batch auction system as a fairer alternative—pausing trade-matching around crop report releases so all traders can process the information before transactions are finalized.

Commodity Market Topics Covered

- USDA Crop Reports Released into Live Trading: How the 2013 shift to real-time crop report release transformed futures markets, creating speed-based trading advantages and new volatility around report releases
- High-Frequency Trading and Speed Advantages: How algorithmic electronic trading turns millisecond information advantages into millions of dollars in profits, and the fairness concerns this raises
- Batch Auction as a Solution: Irwin's proposal to pause trade-matching around USDA crop report releases, eliminating speed advantages and leveling the playing field

Chapter 19: Twister!

Summary

A near-miss F4 tornado that roared past their city of Medford, Oklahoma in 1965—ripping crude oil pump jacks from the ground—introduces a chapter on crude oil futures markets and the extraordinary events of April 20, 2020. Irwin traces the history of WTI crude oil futures to its launch in 1983 and its emergence as the global oil price benchmark. On April 20, 2020, WTI futures traded at negative $37 per barrel for the first time in history, as COVID-19 demand collapse combined with full storage at the Cushing, Oklahoma delivery hub created a desperate scramble to avoid physical delivery. The chapter examines the controversial role of the Essex Boys—Vega Capital London traders, including a trader nicknamed "Cuddles"—who allegedly profited $660 million by "banging the close" through TAS (Trade at Settlement) contracts, leading to a CFTC investigation into whether they manipulated the historic price collapse.

Commodity Market Topics Covered

- WTI Crude Oil Futures—History and Development: How the NYMEX West Texas Intermediate crude oil contract was launched in 1983 and became the world's most important oil price benchmark
- Negative Oil Prices—April 20, 2020: How COVID-19 demand collapse and full Cushing storage combined to push WTI futures to negative $37/barrel for the first time in history
- Market Manipulation—'Banging the Close': How the Essex Boys allegedly used TAS contracts to profit $660 million, triggering a CFTC manipulation investigation

Chapter 20: Out of the Box

Summary

An anonymous energy trader and Twitter personality named "Rinny the Gopher" sends a gopher puppet to Irwin's office, opening a chapter on futures market innovation. Irwin traces how the CME saved itself after the 1958 onion futures ban by launching livestock futures, and how Leo Melamed pioneered currency futures in 1972 after the Bretton Woods collapse—with Milton Friedman's endorsement—marking the birth of financial futures. The chapter examines cryptocurrency futures, with the CBOE and CME both launching Bitcoin futures in December 2017, and micro-Bitcoin contracts following. The collapse of FTX in November 2022 is highlighted, which Sam Bankman-Fried's fraud transformed from the future of crypto into its cautionary tale. CME CEO Terry Duffy had privately called Bankman-Fried a fraud months before the collapse proved him right. The chapter also covers California water futures launched in October 2020 and the political risks facing environmental credit markets, illustrating the challenges new futures contracts face in achieving commercial success.

Commodity Market Topics Covered

- Financial Futures Innovation—Currency and Cryptocurrency: How Leo Melamed's currency futures (1972) launched the financial futures era, and how Bitcoin futures extended this innovation to cryptocurrency markets
- Environmental and Natural Resource Futures: How California water futures and environmental credit markets represent the frontier of futures market innovation, and the political risks they face
- Requirements for Successful New Futures Contracts: Why most new futures contracts fail and what conditions—sufficient hedging demand, price volatility, and political support—are required for commercial success

Chapter 21: The Running of the Cows

Summary

On a July night in 2018, approaching his 60th birthday, Irwin spends hours wrangling escaped Angus cattle through an Iowa cemetery—a fitting metaphor for a lifetime spent chasing markets that refuse to be corralled. The chapter interweaves this story with the memory of his father's sprint car ride-along and his eventual death from Alzheimer's in 2009. Drawing on four decades of research and personal experience, Irwin synthesizes the book's core lessons: futures markets are remarkably efficient, but not perfectly so; a small elite of well-informed, disciplined traders can consistently beat the market; and most speculators lose money over time. The Anti-Speculation Cycle will inevitably recur with the next commodity price spike, regardless of the evidence accumulated against it. Irwin closes with gratitude for his guardian angels—luck, resilience, and the people who kept him in the game—who made a remarkable career possible.

Commodity Market Topics Covered

- Synthesis—What Four Decades of Research Taught: The core lessons from Irwin's career: markets are highly efficient, a small elite can beat them, and most speculators lose—but the pursuit is worthwhile
- The Enduring Anti-Speculation Cycle: Why the cycle of blaming speculators for price spikes will inevitably recur, and why understanding futures markets remains essential for sound policy
- Risk as the Common Thread: How the book's personal stories and market research converge on a single insight—unavoidable risk is the price of participation in both life and markets