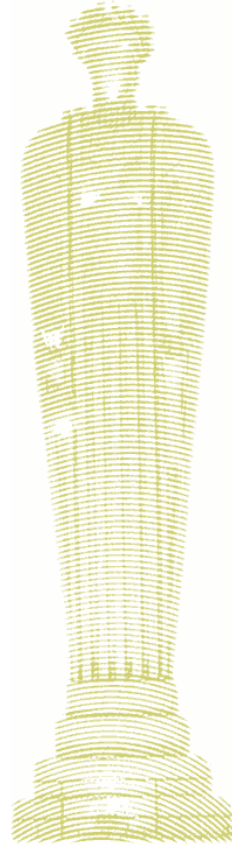


INVESTING IN COMMODITIES



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Premia Capital Management, LLC

- **PURSUANT TO AN EXEMPTION FROM THE COMMODITY FUTURES TRADING COMMISSION IN CONNECTION WITH ACCOUNTS OF QUALIFIED ELIGIBLE PERSONS, THIS BROCHURE IS NOT REQUIRED TO BE, AND HAS NOT BEEN, FILED WITH THE COMMISSION. THE COMMODITY FUTURES TRADING COMMISSION DOES NOT PASS UPON THE MERITS OF PARTICIPATING IN A TRADING PROGRAM OR UPON THE ADEQUACY OR ACCURACY OF THE COMMODITY TRADING ADVISOR'S DISCLOSURE. CONSEQUENTLY, THE COMMODITY FUTURES TRADING COMMISSION HAS NOT REVIEWED OR APPROVED THIS TRADING PROGRAM OR THIS BROCHURE.**
- **INVESTMENT IN FUTURES AND OPTIONS PROGRAMS INVOLVES SUBSTANTIAL RISK OF LOSS AND IS NOT SUITABLE FOR ALL INVESTORS.**



The Case for Commodities

- Commodity futures not only have had *equity-like returns* historically, but they also have had *unique portfolio properties*.

12/29/72 to 9/30/04 Annualized Returns

S&P 500 Index: +10.95%

**Goldman Sachs Commodity Index
(GSCI): +11.28%**

Asset Class Returns by Economic State Over a Recent 20-Year Period

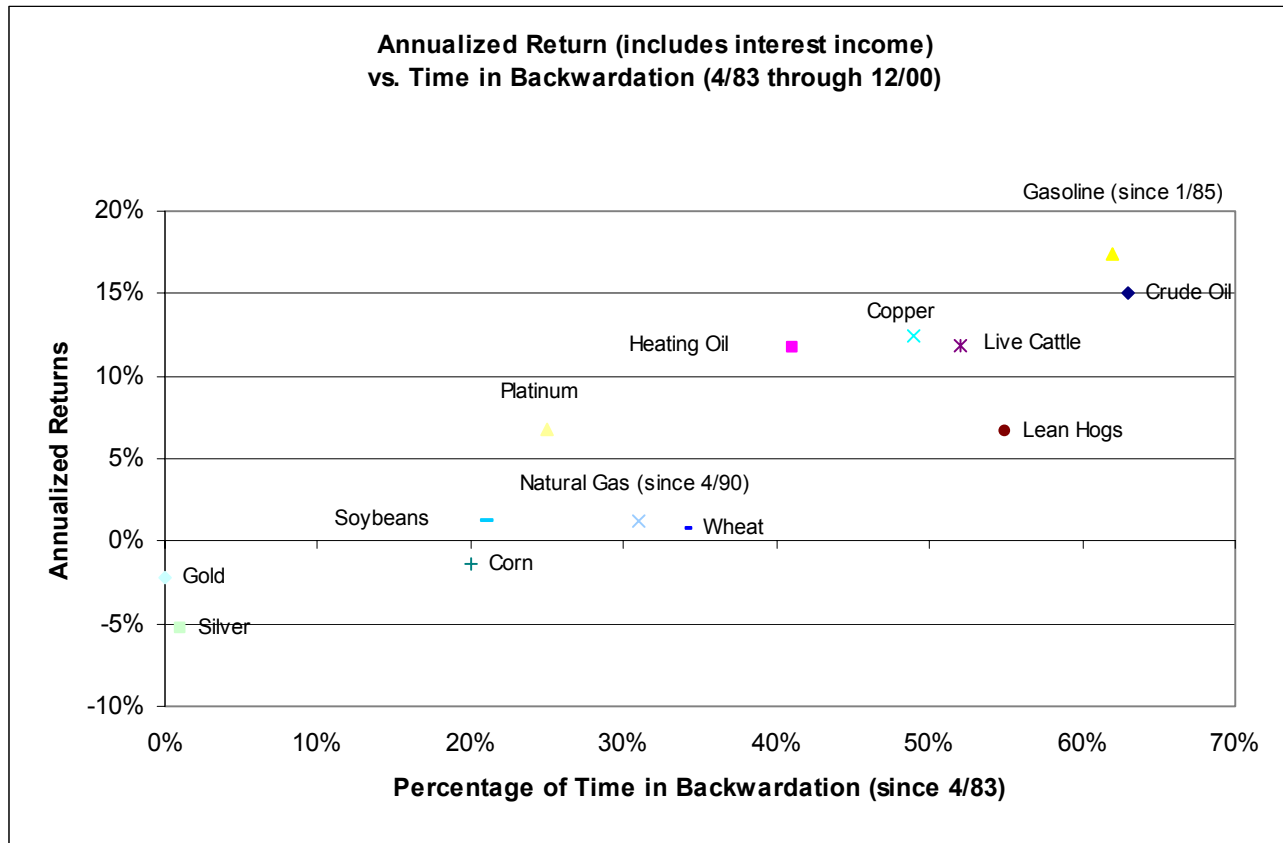
Period
INFLATION

		Accelerating	Decelerating
GROWTH	Accelerating	18.9% GSCI 8.3% S&P 500 7.0% Bonds 1	6.4% GSCI 8.6% S&P 500 11.6% Bonds 4
	Decelerating	14.6% GSCI 25.2% S&P 500 7.1% Bonds 2	2.2% GSCI 12.0% S&P 500 14.0% Bonds 3



Commodity Investment Universe

- Note the commodity markets that have historically had the highest returns. They all share one characteristic: they typically trade in *backwardation*.*



Source: Nash, Daniel, "Long-Term Investing in Commodities,"
Morgan Stanley Dean Witter, Global Pensions Quarterly,
January 2001, Figure 5.



* *Backwardation* occurs when a commodity's immediately-deliverable futures contract trades at a premium to the commodity's deferred-delivery futures contract.

Why Active Management?

- **The commodity futures contracts that have had passive returns of over 10% per year have also had Sharpe ratios of between 0.2 and 0.5.**
- **This is probably not good enough for absolute return investors.**
- **“Investors are not indifferent [to] whether an active manager simply captures the premium of the asset class or whether he or she tilts the return distribution of the portfolio to the right.”**

Source: Ineichen, Alexander, “Asymmetric Returns and Sector Specialists,” *Journal of Alternative Investments*, Spring 2003.

Investment Focus for an Actively Managed Commodity Program

- **Commodity futures markets with a *focus* on the petroleum complex, base metals, and livestock.**
- **Plus niche financial market opportunities that provide positive expected value trades and frequently, attractive risk management characteristics. These are mainly found in the U.S. fixed income markets.**
- **Other strategies include weather-fear premium trades in the tropical, grain, and natural gas futures markets.**



Return Rationale

- **Even *passively* investing in the petroleum complex, base metals, and livestock has historically had healthy returns over extended periods of time.**
- **Why?**
- **Each of these commodities have “difficult” storage situations.**
- **Price has to do a lot or all the work of equilibrating supply and demand, leading to very volatile spot commodity prices.**
- **Holders of commodity inventories will therefore (tend to) hedge forward to manage this risk, putting downward pressure on forward commodity prices.**
- **In that situation, a long commodity futures position will (tend to) have a positive expected return.**

Source: Till, Hilary and Joseph Eagleeye, “The Risks of Commodity Investing,” a chapter in [The New Generation of Risk Management for Hedge Funds and Private Equity Investments](#) (Edited by Lars Jaeger), Euromoney book, London, 2003.



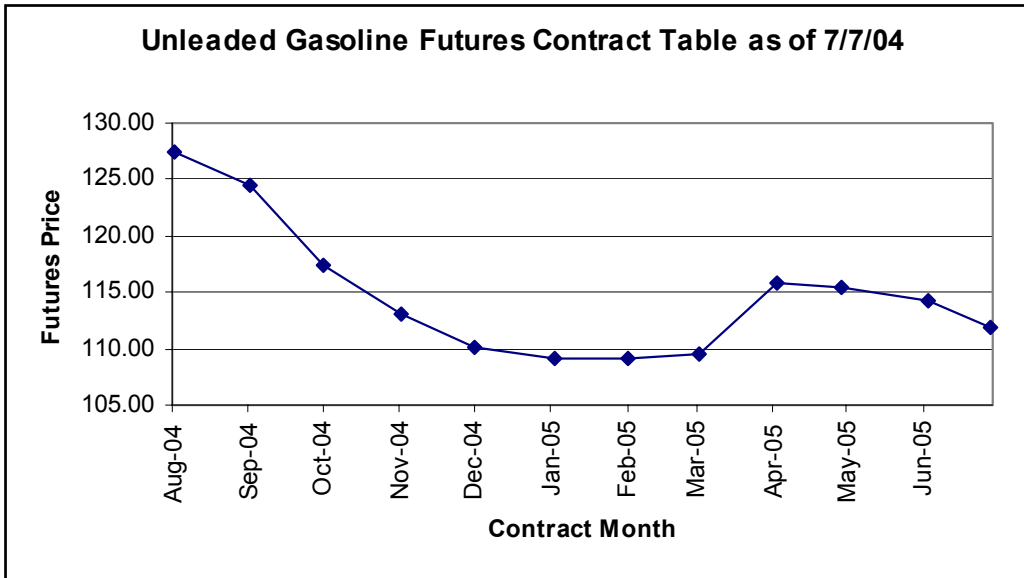
Investment Process

- **Focus on those commodity markets that have produced consistent returns over time.**
- **Verify fundamental rationale for these consistent returns so that we can have confidence that they will continue in the future.**
- **Distill returns even more so than a passive program through Entry and Exit Rules and Trade Construction.**

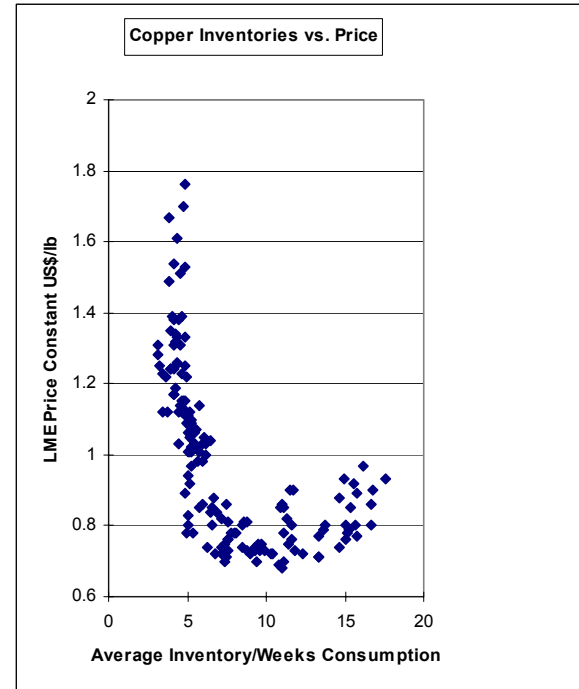


Return Composition

- **Rolling up the futures curve
(Gasoline Example):**



- **Long a cheap option
(Copper Example):**



- **November gasoline was priced at a steep discount to the front-month contract this summer. If spot prices did not change over the summer, this contract would appreciate significantly by “rolling up the curve.”**

- **This graph shows the historical tendency of copper prices to spike when at scarce inventory levels. A reliable indicator of scarcity is when the futures curve is trading “in backwardation.”**



Expectations Going Forward

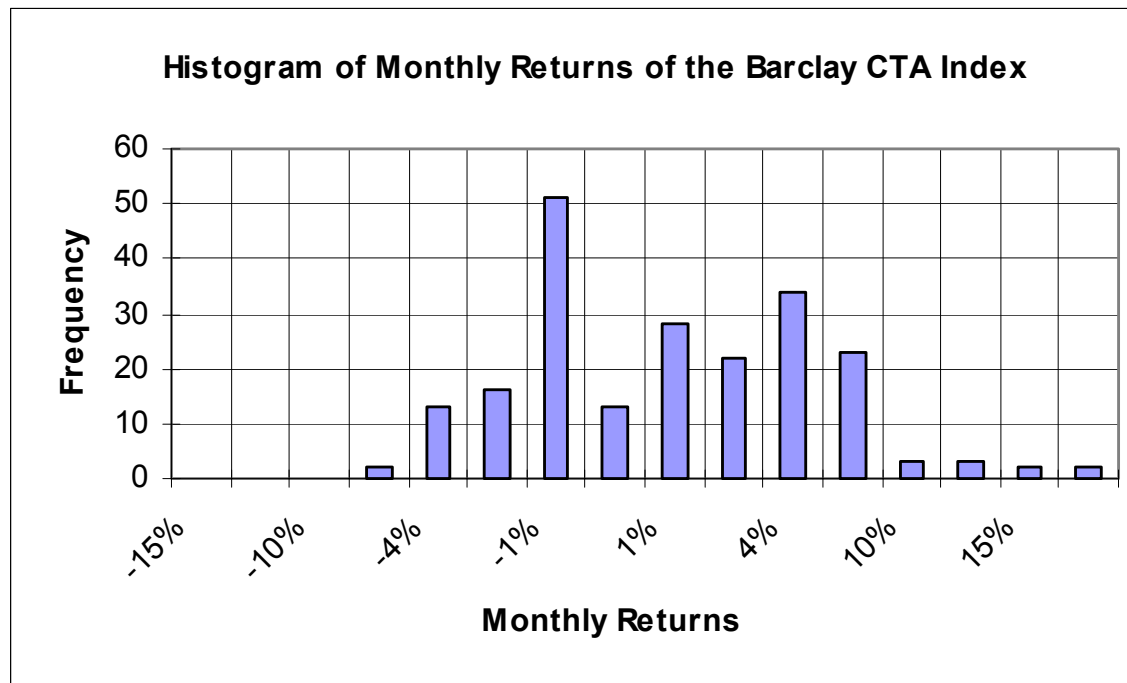
- **Petroleum Complex: No new U.S. refiners have opened since 1976.**
- **Metals: Long lead time between production decision and actual production due to the lengthy and capital-intensive mining process.**
- **Livestock: Not storable.**
- **Each of these commodities do not have enough (or any) storage to dampen price volatility. Therefore, we expect a structural feature of these markets to continue: they will continue to trade in backwardation.**



Product Design

Payoff Profile

Investors expect long-options-like profiles from CTA's and global macro hedge fund managers.

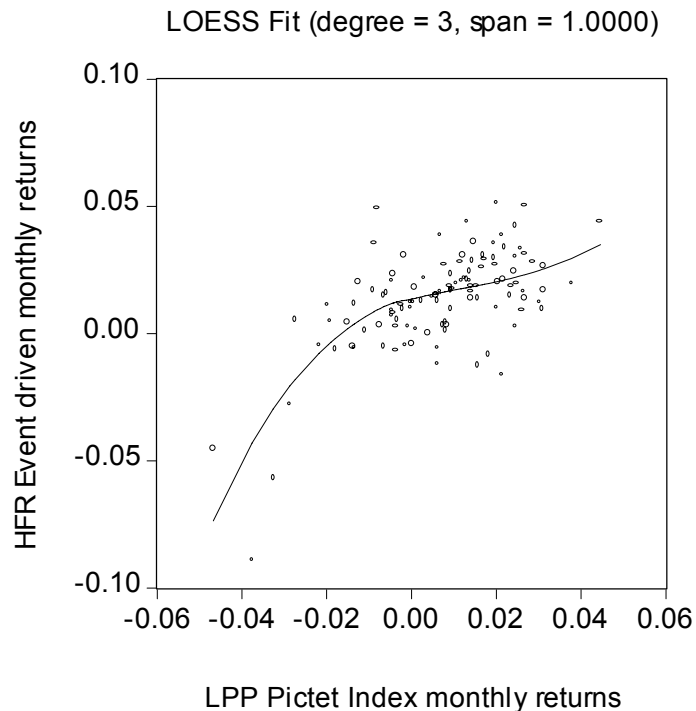


Source: "Histogram of Monthly Returns of the Barclay CTA Index," Lungarella, Gildo, Harcourt AG, "Managed Futures: A Real Alternative," *swissHEDGE*, 4th Quarter 2002, Figure 1.



Product Design (Continued)

- **If investors want short-options-like profiles, they can already source that return profile from arbitrage strategies.**

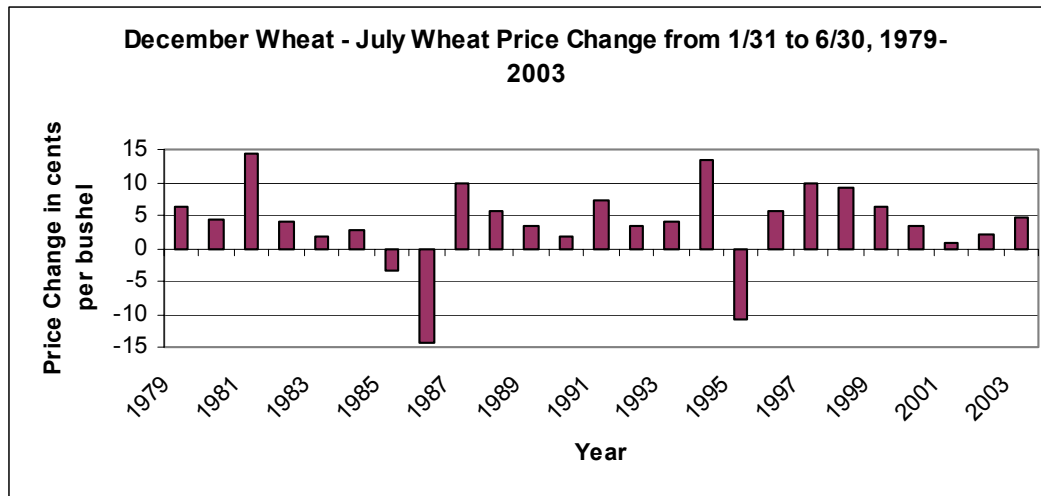


Source: Hedge Fund Research (HFR) Event Driven Index's Monthly Returns vs. a Swiss equity-and-bond benchmark from Favre, Laurent and Jose-Antonio Galeano, "An Analysis of Hedge Fund Performance Using Loess Fit Regression," *Journal of Alternative Investments*, Spring 2002, Exhibit 8.



Trade Sizing

- Therefore, the core of a commodity futures program needs to consist of trades with *long-options-like profiles* as when scarcity is indicated in a commodity market.
- The sizing of trades with *short-options-like profiles* needs to be kept modest and be constrained to a satellite ring of the portfolio so as to increase the likelihood of delivering the payoff profile desired by CTA investors.

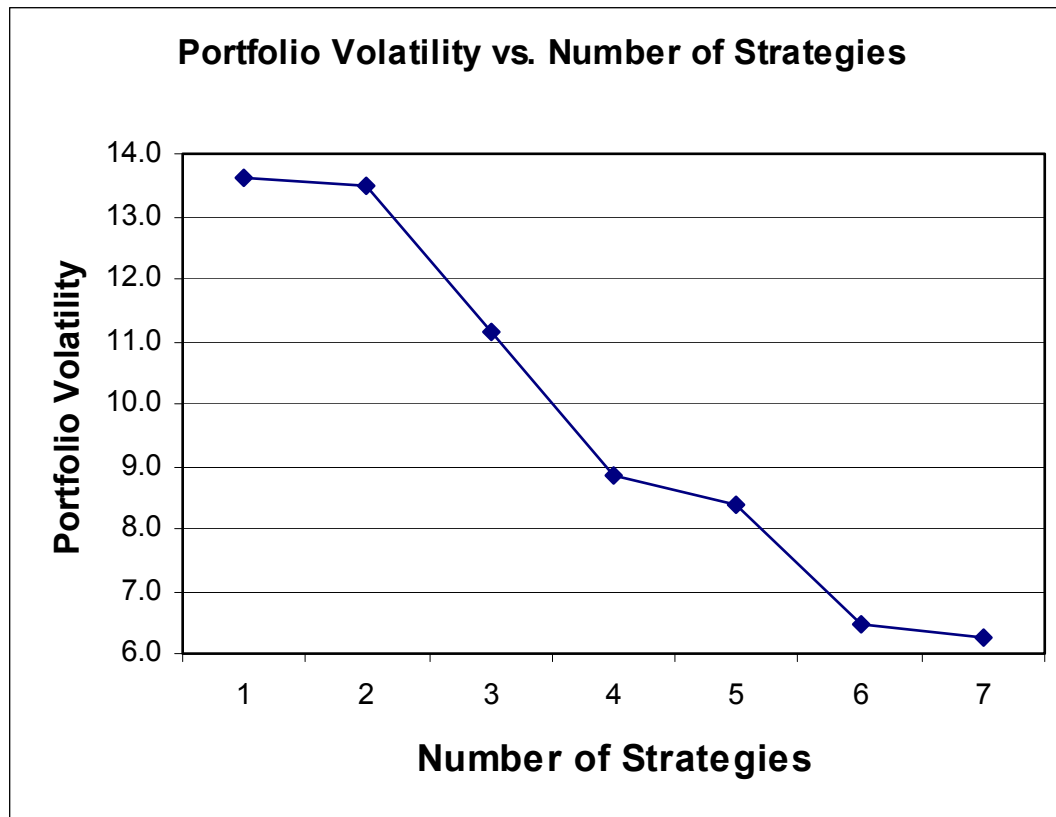


Source: Till, Hilary and Joseph Eagleeye, "How to Design a Commodity Futures Trading Program," a chapter in the book, *Commodity Trading Advisors: Risk, Performance, Analysis and Selection*, edited by Gregoriou, Greg, Vassilios N. Karavas, Francois-Serge Lhabitant and Fabrice Rouah, John Wiley and Sons, New York, September 2004.



Portfolio Construction

- **Example of portfolio effect when combining independent strategies:**

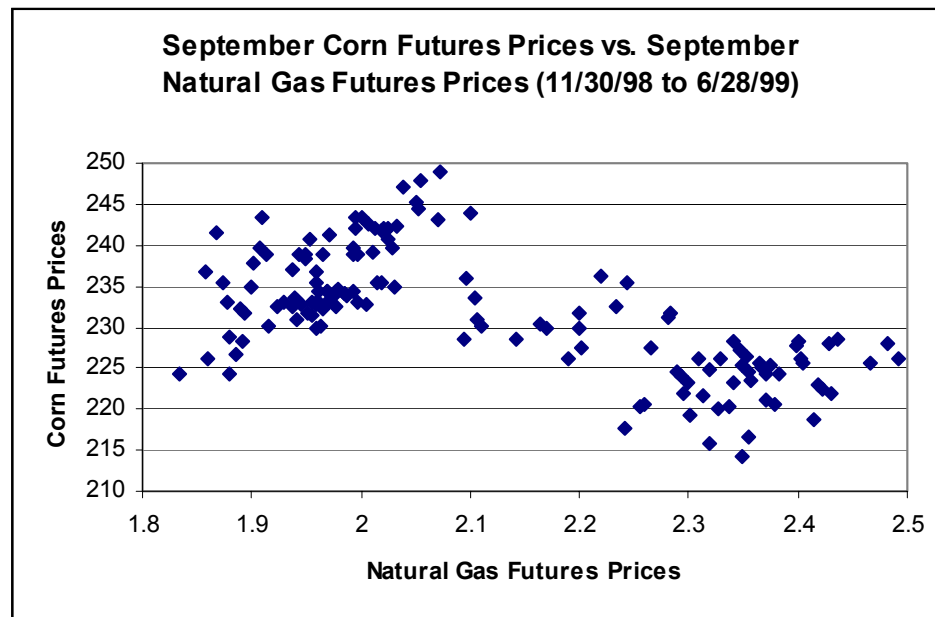


Source: Till, Hilary, *Derivatives Quarterly*, Fall 2000.



Risk Management

- One must avoid inadvertent concentration risk.
- The following graphs illustrate how two normally unrelated markets can become temporarily very related:



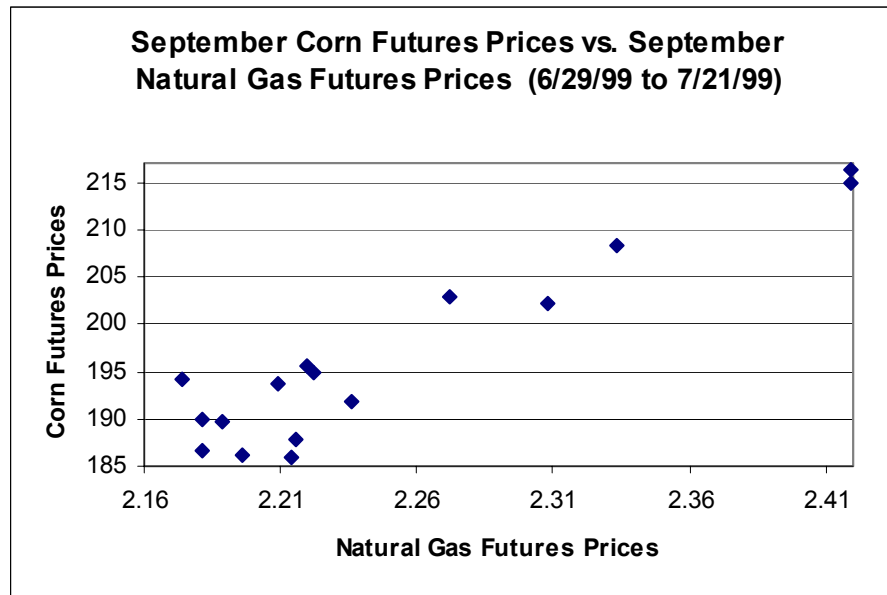
Source: Till, Hilary, "Taking Full Advantage of the Statistical Properties of Commodity Investments." *Journal of Alternative Investments*, Summer 2001.



Risk Management

(Continued)

- In July, both corn and natural gas prices are heavily dependent on the outcome of weather in the U.S. Midwest.
- And in July 1999, the Midwest experienced blistering temperatures.



Source: Till, Hilary, "Taking Full Advantage of the Statistical Properties of Commodity Investments." *Journal of Alternative Investments*, Summer 2001.



Risk Management

(Continued)

- **When a program has a long commodity bias, it will have systematic risk to severe shocks to the business confidence.**
- **Therefore, it is advisable to include long fixed-income positions in the portfolio as a natural hedge to this systematic risk.**
- **It is also advisable to perform event-risk simulations on the commodity portfolio and to consider buying macro portfolio protection.**

Meaningful Eventful Periods

October 1987 stock market crash

Gulf War in 1990

Fall 1998 bond market debacle

Aftermath of 9/11/01 attacks



Risk Management (Continued)

Example Risk Reports

<u>Strategy</u>	<u>Value-At-Risk</u>	<u>Worst-Case Loss During Normal Times</u>	<u>Worst-Case Loss During Eventful Period</u>
Deferred Reverse Soybean Crush Spread	2.78%	-1.09%	-1.42%
Long Deferred Natural Gas Outright	0.66%	-0.18%	-0.39%
Short Deferred Wheat Spread	0.56%	-0.80%	-0.19%
Long Deferred Gasoline Outright	2.16%	-0.94%	-0.95%
Long Deferred Gasoline vs. Heating Oil Spread	2.15%	-1.04%	-2.22%
Long Deferred Hog Spread	0.90%	-1.21%	-0.65%
Portfolio	3.01%	-2.05%	-2.90%

<u>Strategy</u>	<u>Incremental Contribution to Portfolio Value-At-Risk*</u>	<u>Incremental Contribution to Worst-Case Portfolio Event Risk*</u>
Deferred Reverse Soybean Crush Spread	0.08%	-0.24%
Long Deferred Natural Gas Outright	0.17%	0.19%
Short Deferred Wheat Spread	0.04%	0.02%
Long Deferred Gasoline Outright	0.33%	0.81%
Long Deferred Gasoline vs. Heating Oil Spread	0.93%	2.04%
Long Deferred Hog Spread	0.07%	-0.19%

* A positive contribution means that the strategy adds to risk

Source: Till, Hilary,
“Risk Management Lessons in Leveraged Commodity
Futures Trading,” *Commodities Now*, September 2002.



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